

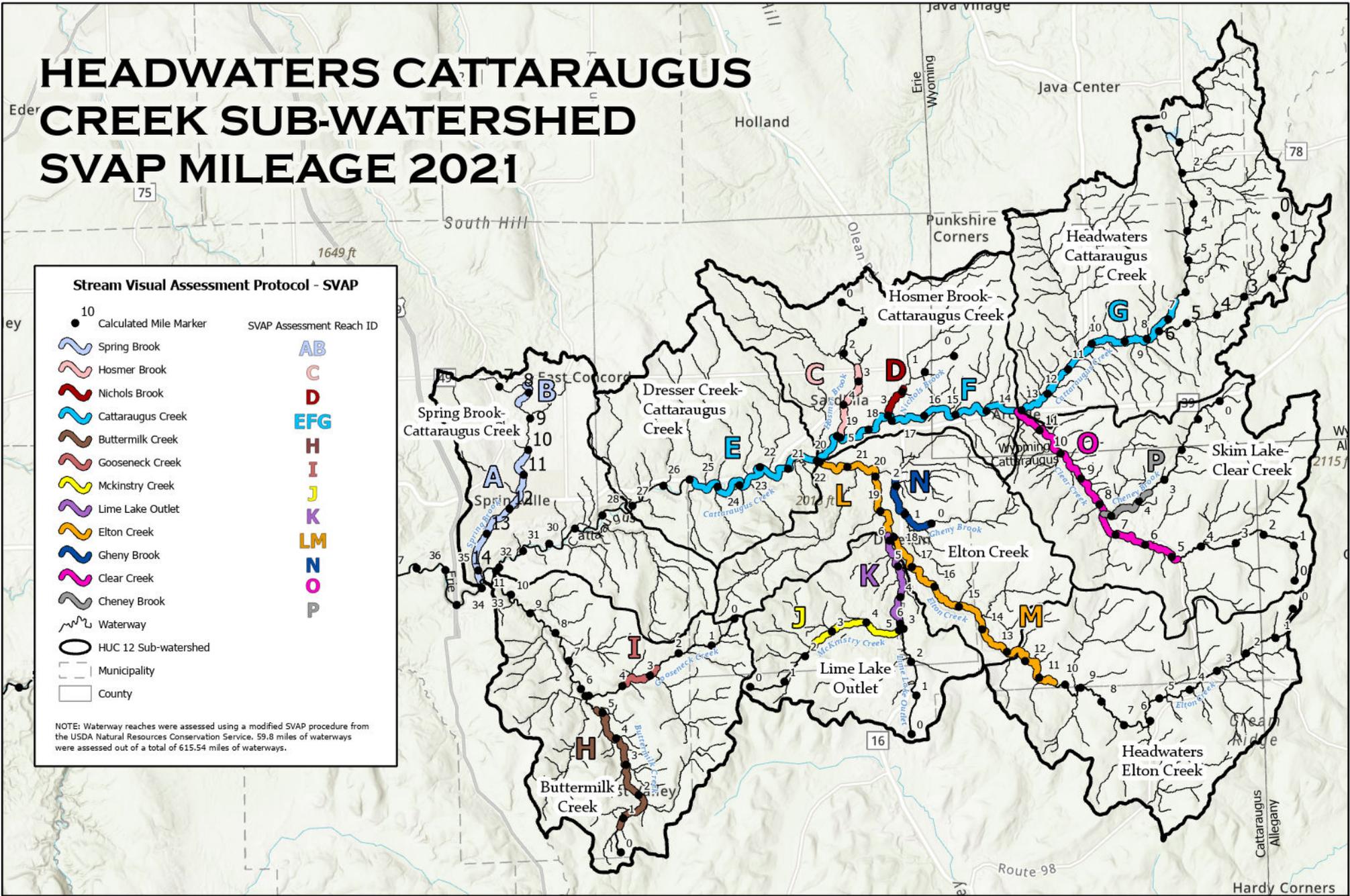
HEADWATERS CATTARAUGUS CREEK SUB-WATERSHED SVAP MILEAGE 2021

Stream Visual Assessment Protocol - SVAP

- 10 Calculated Mile Marker
- SVAP Assessment Reach ID
- Spring Brook
- Hosmer Brook
- Nichols Brook
- Cattaraugus Creek
- Buttermilk Creek
- Gooseneck Creek
- Mckinstry Creek
- Lime Lake Outlet
- Elton Creek
- Gheny Brook
- Clear Creek
- Cheney Brook
- Waterway
- HUC 12 Sub-watershed
- Municipality
- County

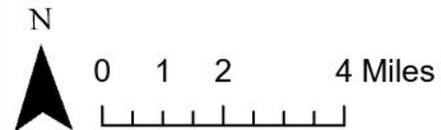
SVAP Assessment Reach ID: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P

NOTE: Waterway reaches were assessed using a modified SVAP procedure from the USDA Natural Resources Conservation Service. 59.8 miles of waterways were assessed out of a total of 615.54 miles of waterways.



This map was prepared with funding provided by the New York State Department of State under Title 11 of the Environmental Protection Fund.

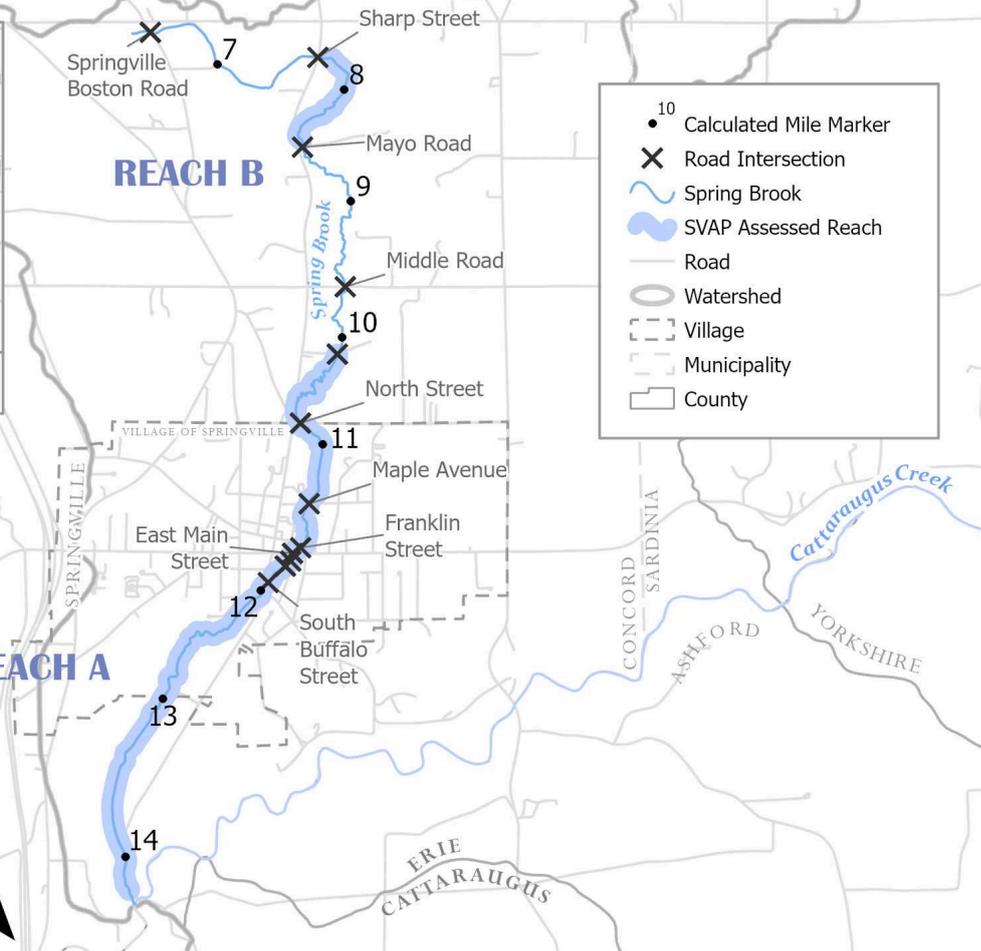
Esri, NASA, NGA, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, Airbus DS, N Robinson, NCEAS, NLS, OS, NMA, Geodata styrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



SPRING BROOK

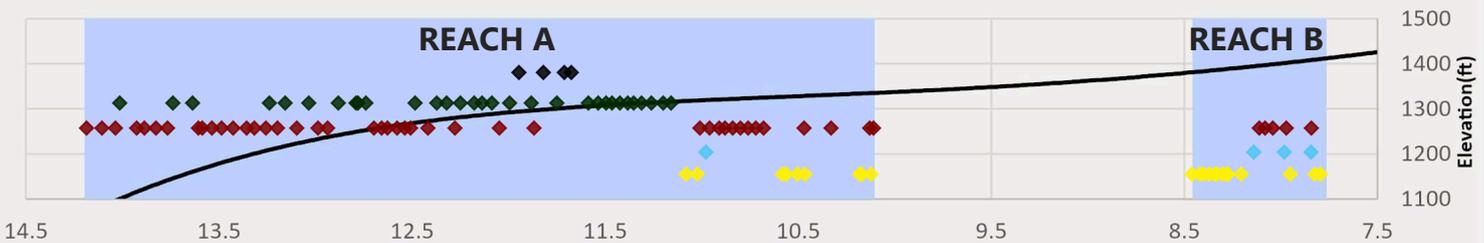
STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) FOR REACH A & B

AVERAGE OVERALL SVAP RATING: **6.5**

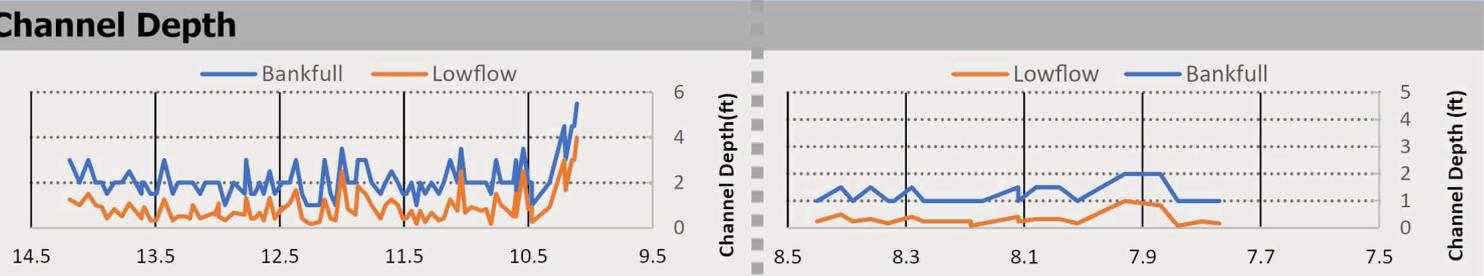


Elevation Profile

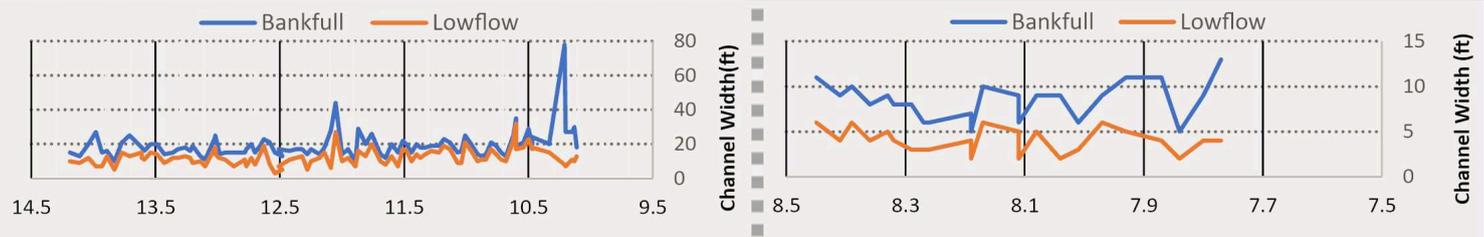
Substrate: ◆ Boulder ◆ Cobble ◆ Gravel ◆ Sand ◆ Silt/Clay



Channel Depth



Channel Width



← FLOW DIRECTION Creek Mile: Reach A (14.19 at Tailwater, 10.11 at Headwater), Reach B (8.45 at Tailwater, 7.7 at Headwater) → FLOW DIRECTION

Classification Scheme for SVAP Parameters

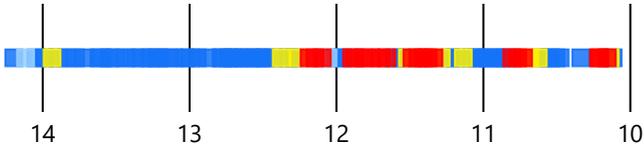
Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH A

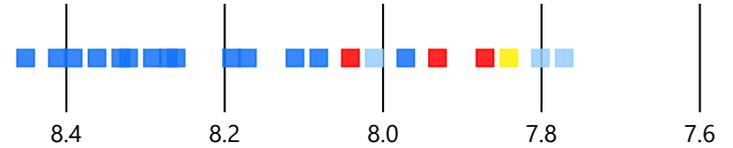
REACH B

Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

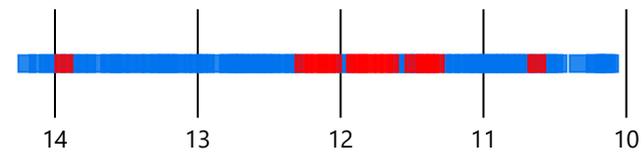


Score ■ Excellent ■ Good ■ Mediocre ■ Poor

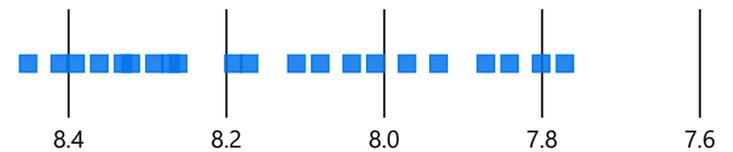


Stream Bank Hardening

■ NO ■ YES

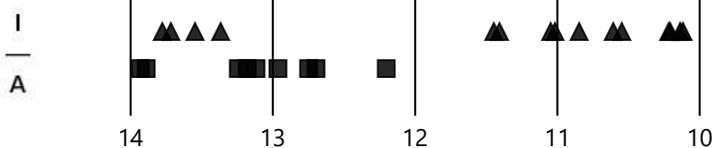


■ NO ■ YES

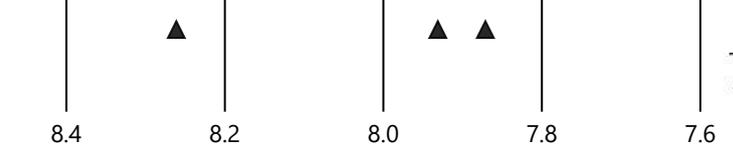


Aggradation/Incision

■ Aggradation ▲ Incision

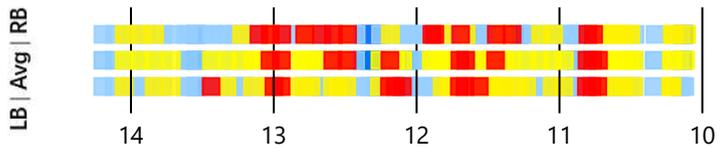


■ Aggradation ▲ Incision

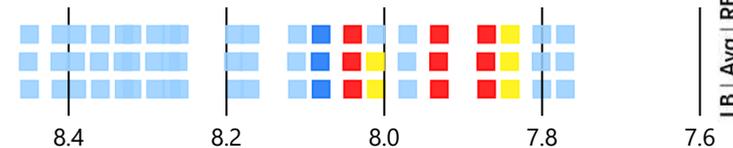


Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

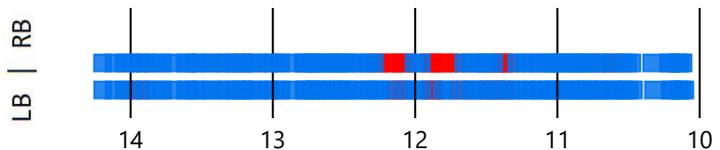


Score ■ Excellent ■ Good ■ Mediocre ■ Poor

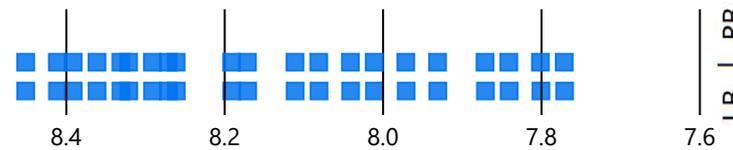


Bank Condition

■ Hardened Structure ■ Natural

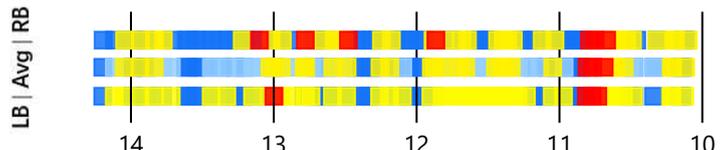


■ Hardened Structure ■ Natural

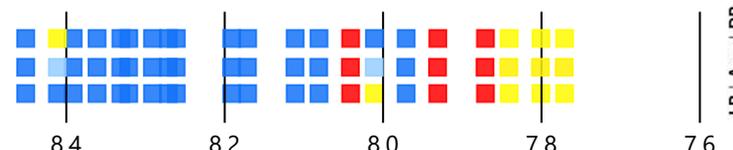


Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Score ■ Excellent ■ Good ■ Mediocre ■ Poor

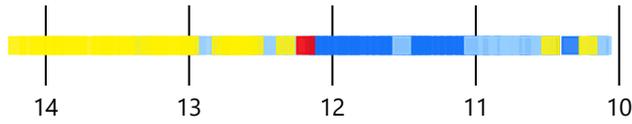


REACH A

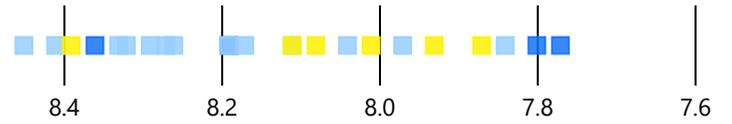
REACH B

Water Appearance

Score Excellent Good Mediocre Poor

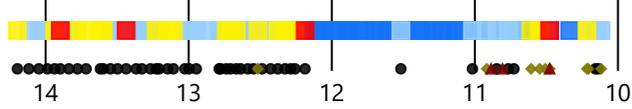


Score Excellent Good Mediocre Poor

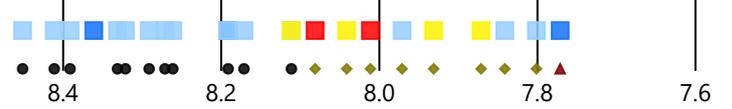


Nutrient Enrichment

Amount Low Mild Moderate Severe NE Notes Algal growth Both Dense Aquatic Plant Beds

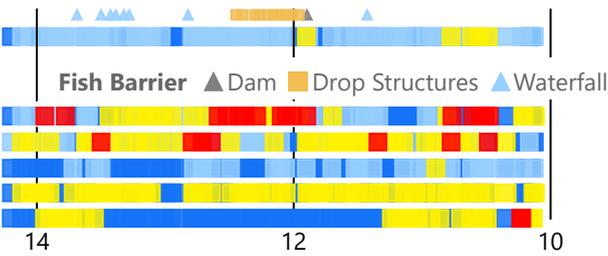


Amount Low Mild Moderate Severe NE Notes Algal growth Both Dense Aquatic Plant Beds



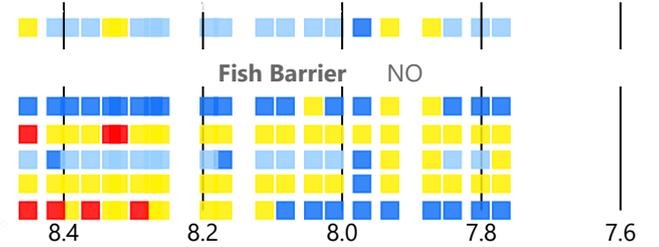
Fish Habitat Score Excellent Good Mediocre Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



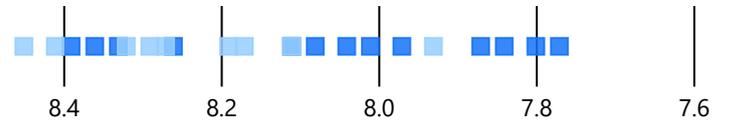
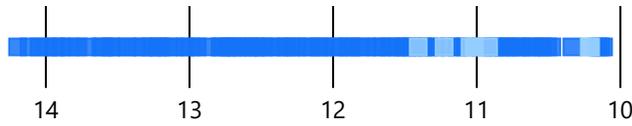
OVERALL SCORE

Canopy Cover Pools Invertebrate Habitat Instream Cover Riffle Embeddedness



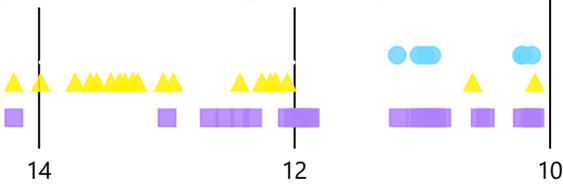
Manure Presence

Evidence of Animals in Zone None



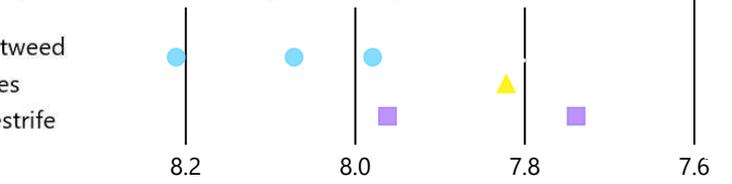
Invasive Species

Japanese Knotweed Phragmites Purple Loosestrife



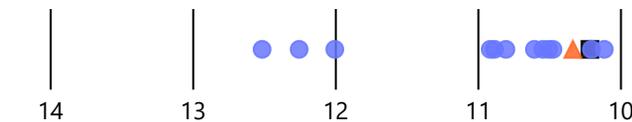
Japanese Knotweed Phragmites Purple Loosestrife

Japanese Knotweed Phragmites Purple Loosestrife

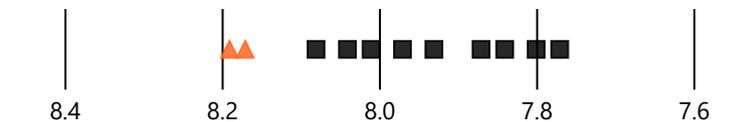


Aquatic Vegetation

Both Emergent Submerged

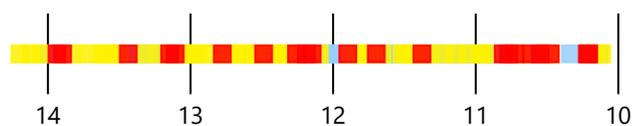


Both Emergent Submerged



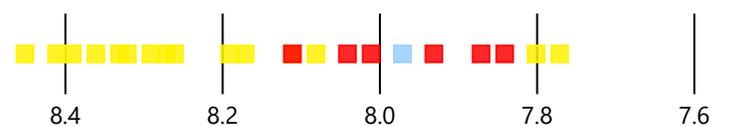
OVERALL SVAP RATING

Score Good Mediocre Poor



SPRING BROOK

Score Good Mediocre Poor

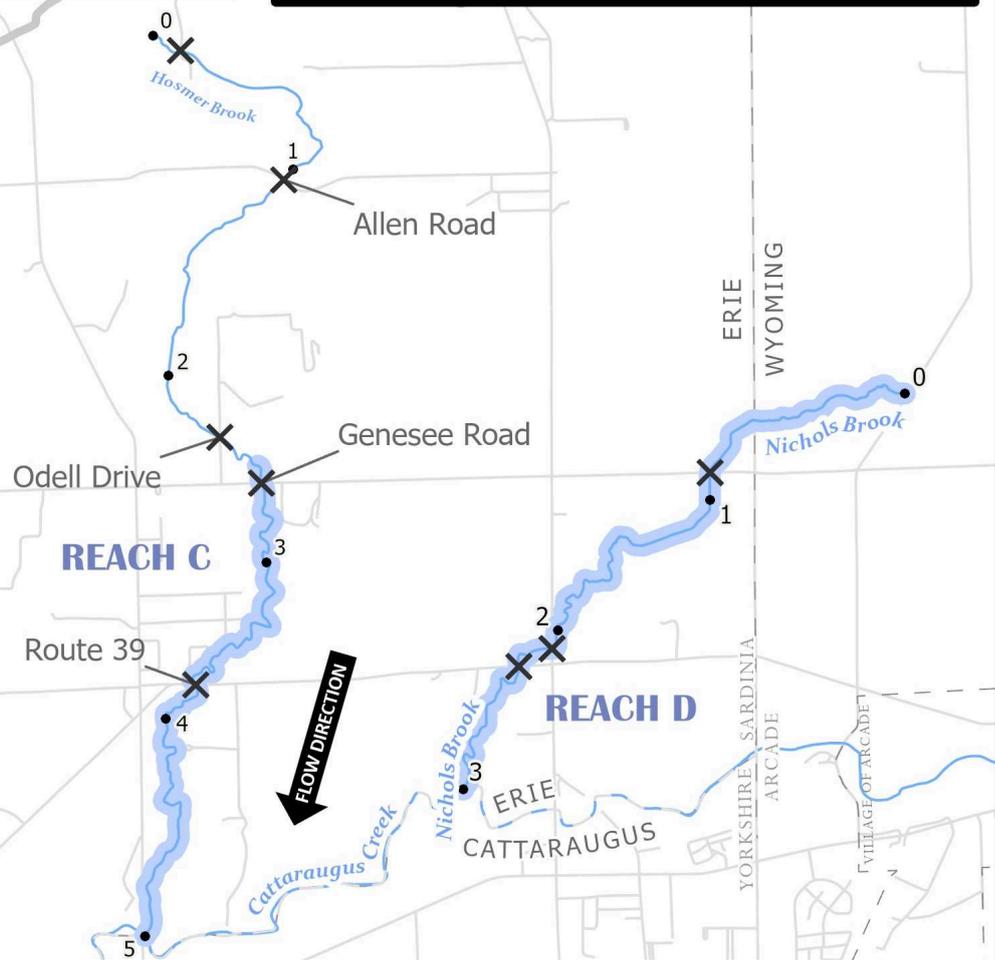
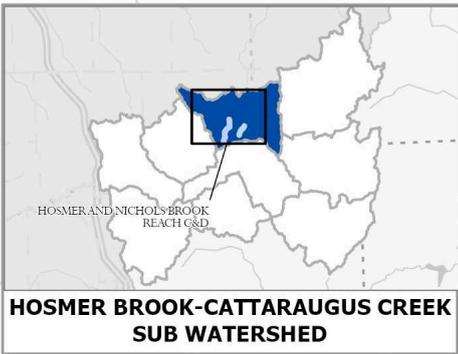


HOSMER BROOK AND NICHOLS BROOK

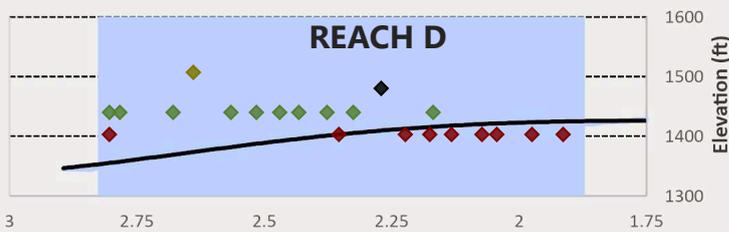
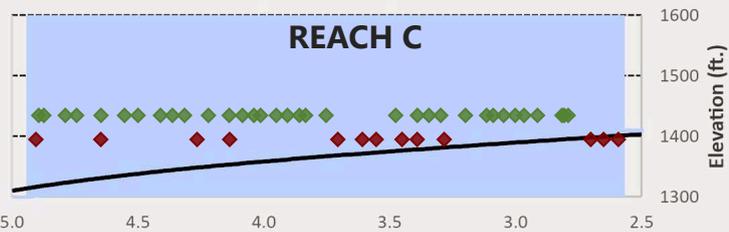
STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) FOR REACH C & D

AVERAGE OVERALL SVAP RATING:
REACH C: **7.5**, REACH D: **7.1**

- 10 Calculated Mile Marker
- ✕ Road Intersection
- ~ Waterways of Interest
- ~ SVAP Assessed Reach
- Road
- Watershed
- ⋮ Village
- ⋮ Municipality
- ⋮ County



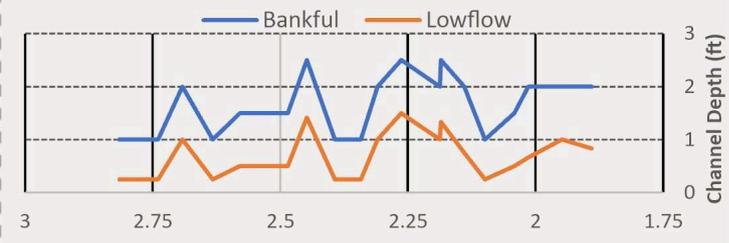
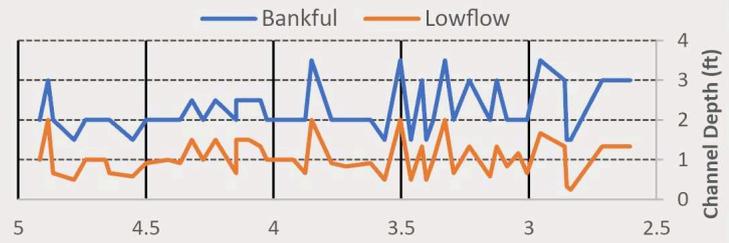
Elevation Profile Substrate ◆ Bedrock/Concrete ◆ Boulder ◆ Cobble ◆ Gravel



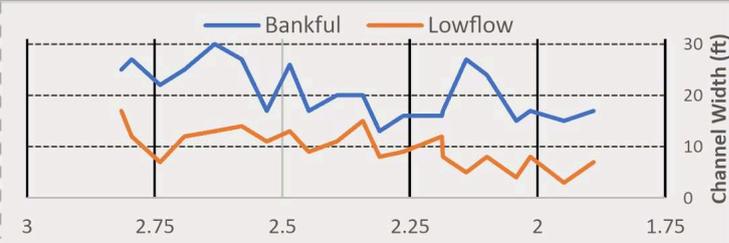
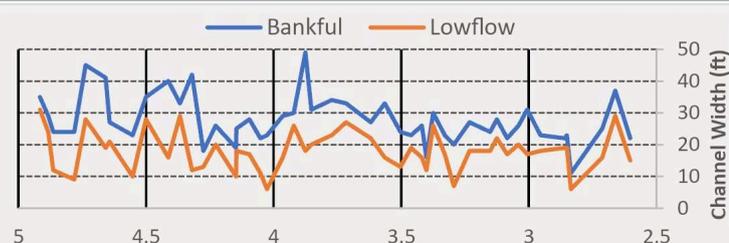
REACH C

REACH D

Channel Depth



Channel Width



← FLOW DIRECTION Creek Mile: Reach C (4.90 at Tailwater, 2.60 at Headwater), Reach D (2.80 at Tailwater, 1.90 at Headwater) → FLOW DIRECTION

Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

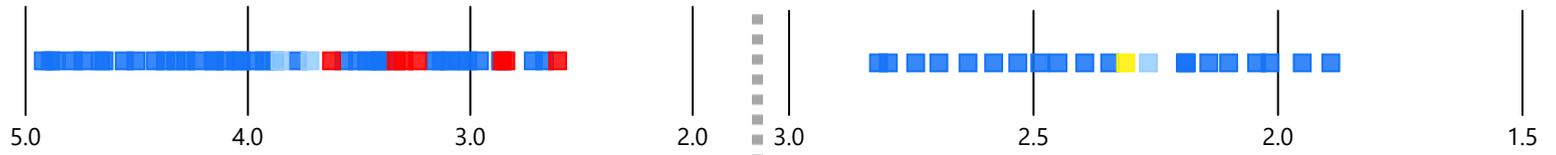
REACH C

REACH D

Channel Conditions

Score ■ Excellent ■ Good ■ Poor

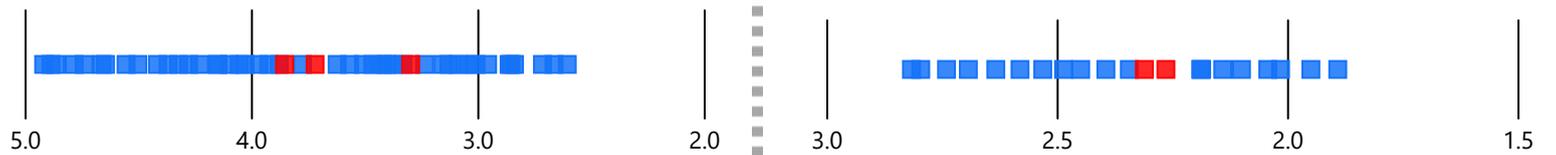
Score ■ Excellent ■ Good ■ Mediocre



Stream Bank Hardening

■ NO ■ YES

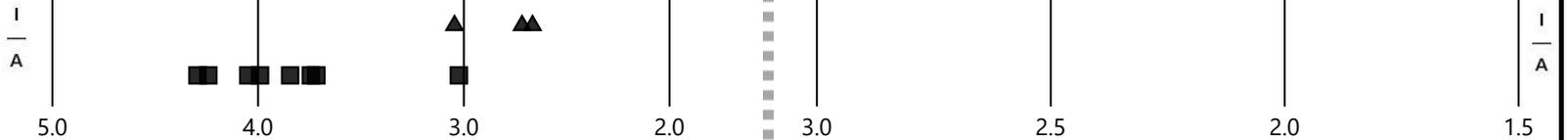
■ NO ■ YES



Aggradation/Incision

■ Aggradation ▲ Incision

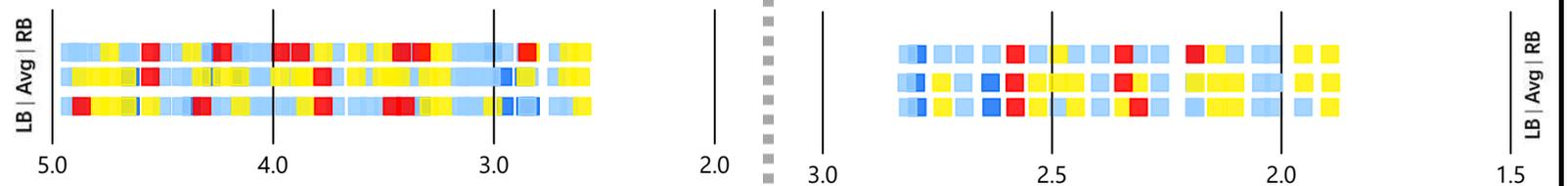
■ Aggradation ▲ Incision



Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

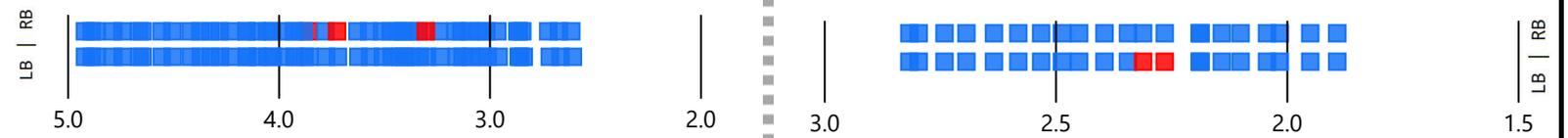
Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Bank Condition

■ Hardened Structure ■ Natural

■ Hardened Structure ■ Natural



Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

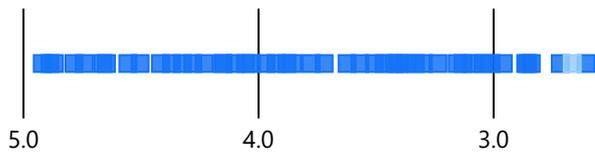


REACH C

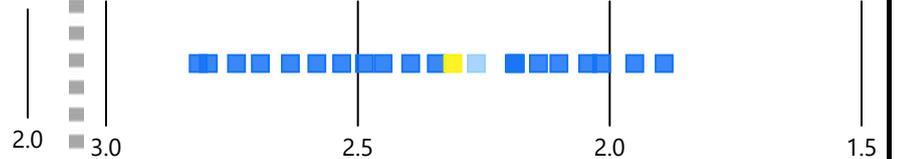
REACH D

Water Appearance

Score Excellent Good



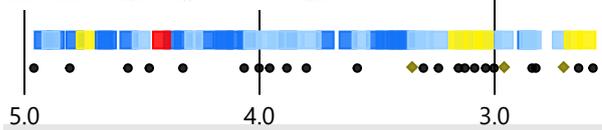
Score Excellent Good Mediocre



Nutrient Enrichment

Score Low Mild Moderate Severe

NE Notes: Algal Growth Both



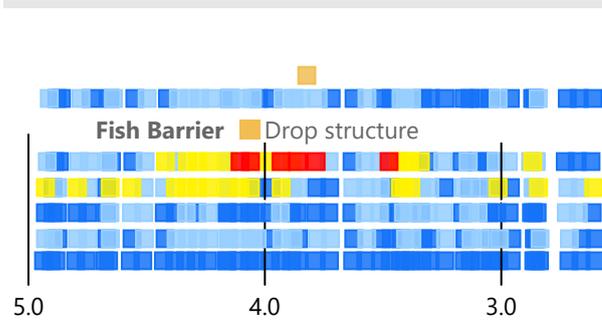
Score Low Mild Moderate Severe

NE Notes: Algal Growth Both Dense Aquatic Plant Beds



Fish Habitat Score Excellent Good Mediocre Poor

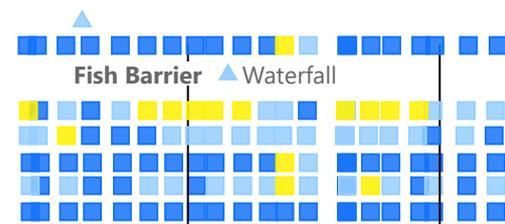
Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



OVERALL SCORE

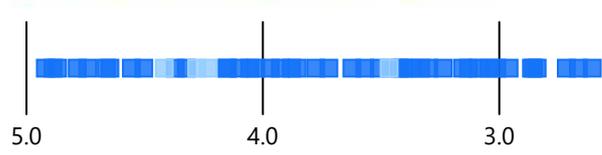
Canopy Cover Pools Invertebrate Habitat Instream Cover Riffle Embeddedness

2.0 3.0



Manure Presence

Evidence of Animals in Zone None

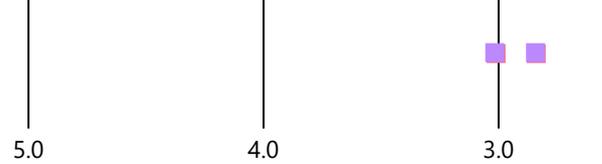


Evidence of Animals in Zone None

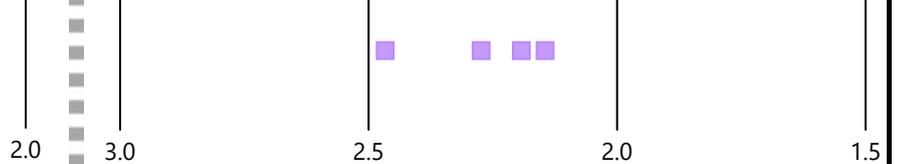


Invasive Species

Purple Loosestrife



Purple Loosestrife



Aquatic Vegetation

Submerged



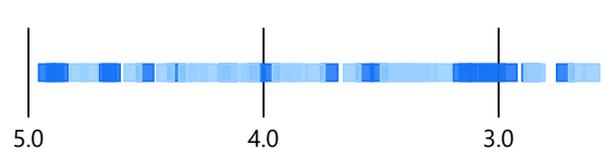
Submerged



OVERALL SVAP RATING

HOSMER BROOK AND NICHOLS BROOK

Score Excellent Good



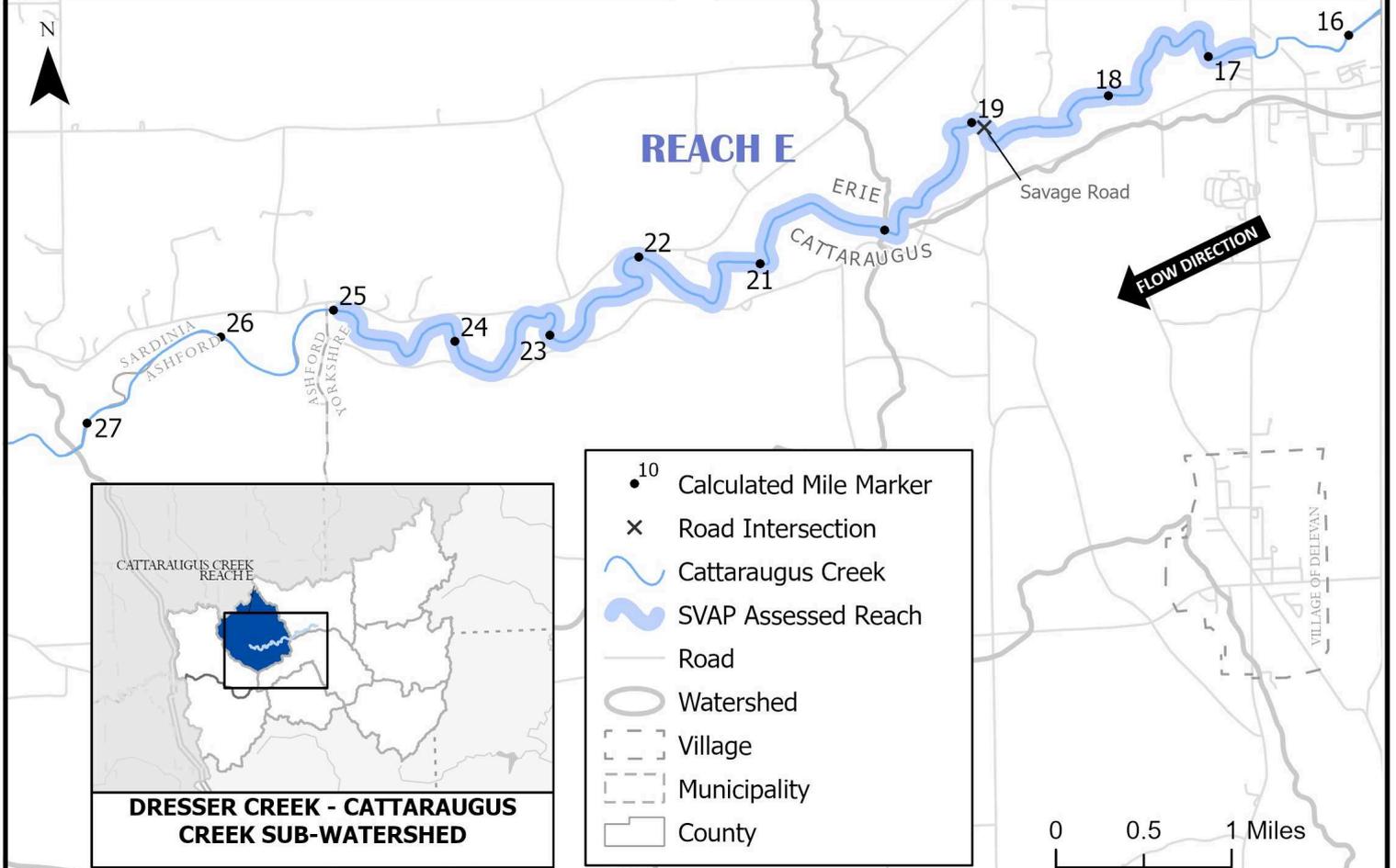
Score Excellent Good



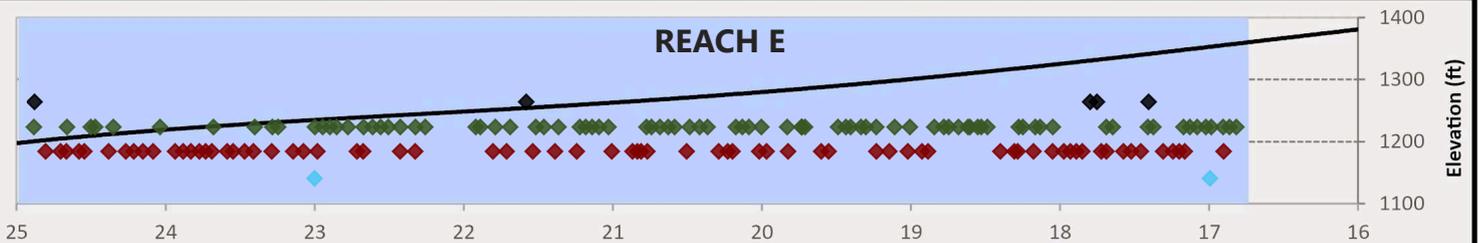
CATTARAUGUS CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) FOR REACH E

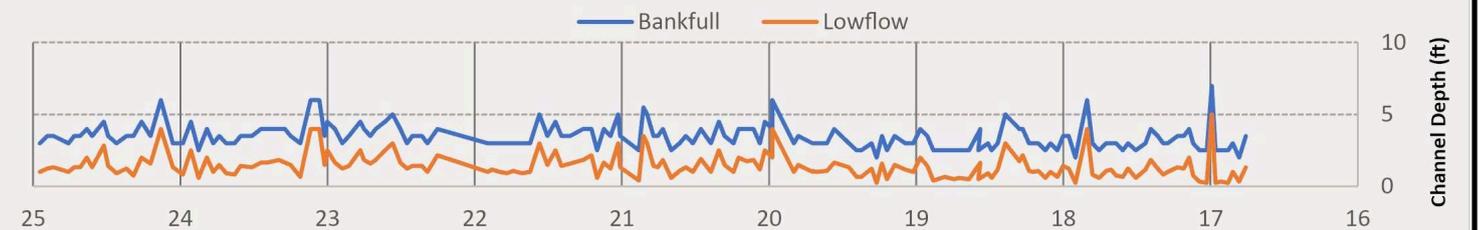
AVERAGE OVERALL SVAP RATING: **6.3**



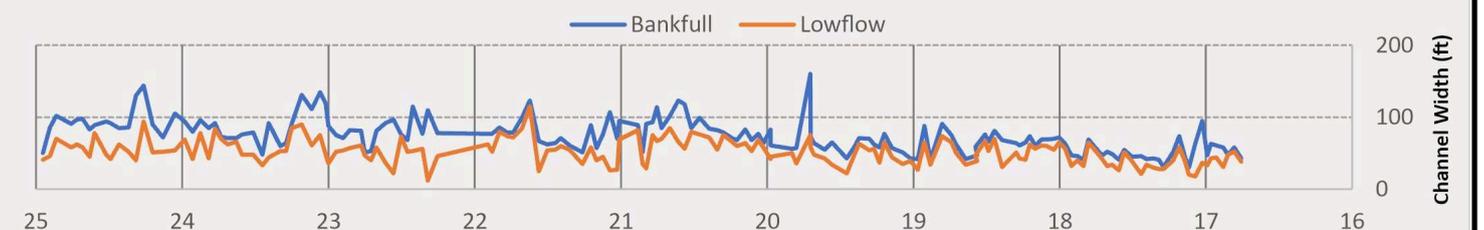
Elevation Profile Substrate: ◆ Boulder ◆ Cobble ◆ Gravel ◆ Sand



Channel Depth



Channel Width



← **FLOW DIRECTION** **Creek Mile (24.95 at Tailwater, 16.76 at Headwater)** **FLOW DIRECTION** →

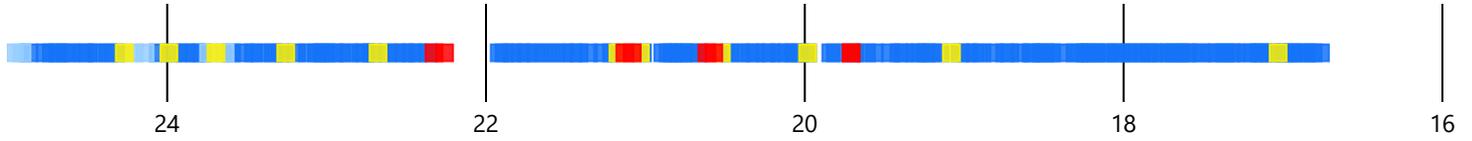
Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH E

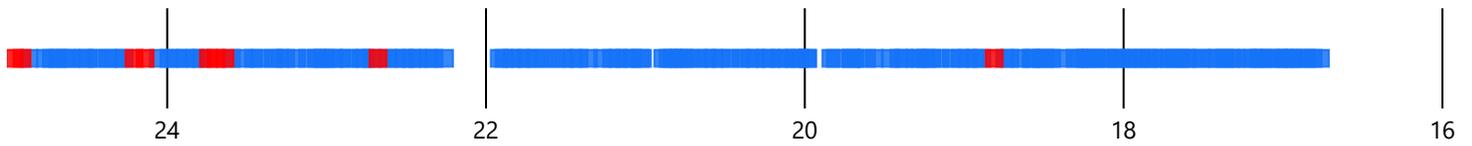
Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Stream Bank Hardening

■ NO ■ YES



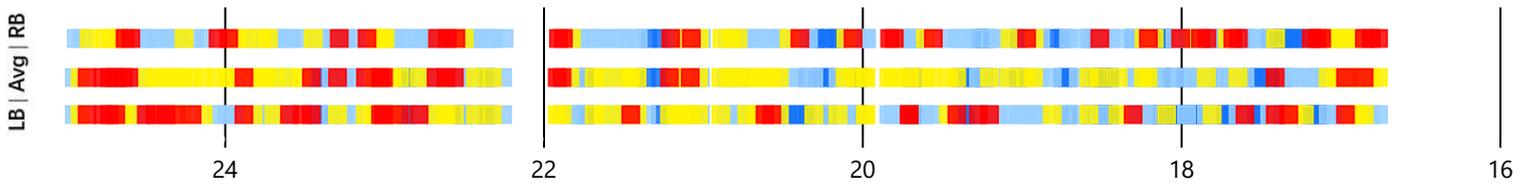
Aggradation/Incision

■ Aggradation ▲ Incision



Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



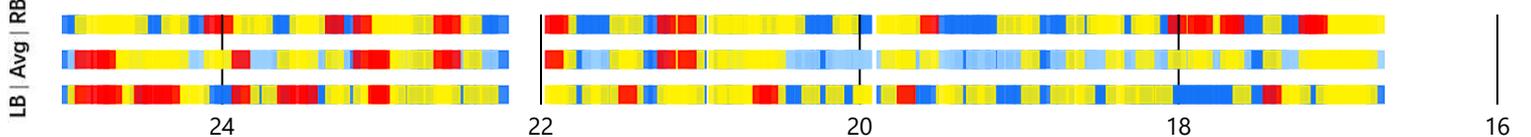
Bank Condition

■ Hardened Structure ■ Natural



Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



← FLOW DIRECTION

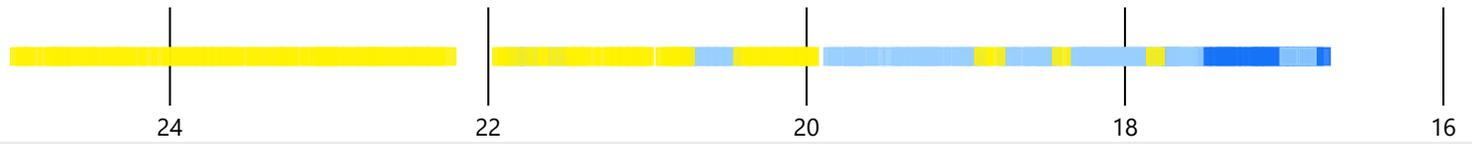
Creek Mile (24.95 at Tailwater, 16.76 at Headwater)

← FLOW DIRECTION

REACH E

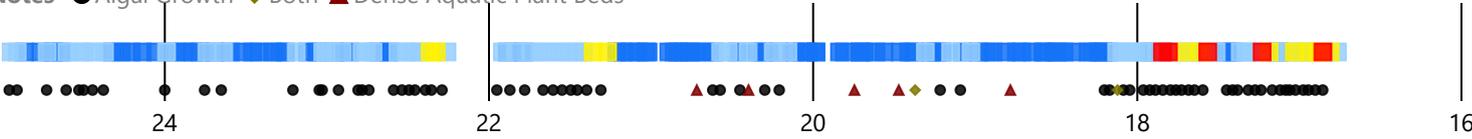
Water Appearance

Score ■ Excellent ■ Good ■ Mediocre



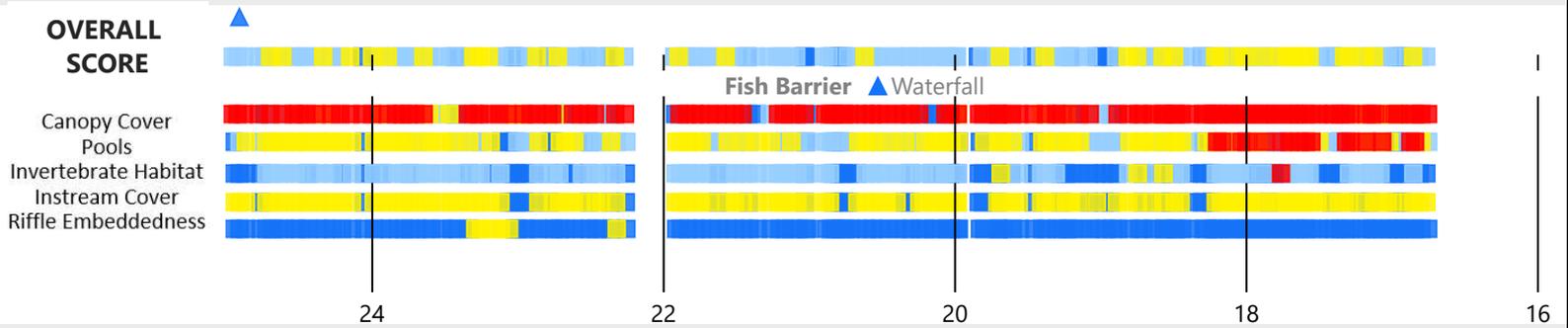
Nutrient Enrichment

Amount ■ Low ■ Mild ■ Moderate ■ Severe
NE Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds



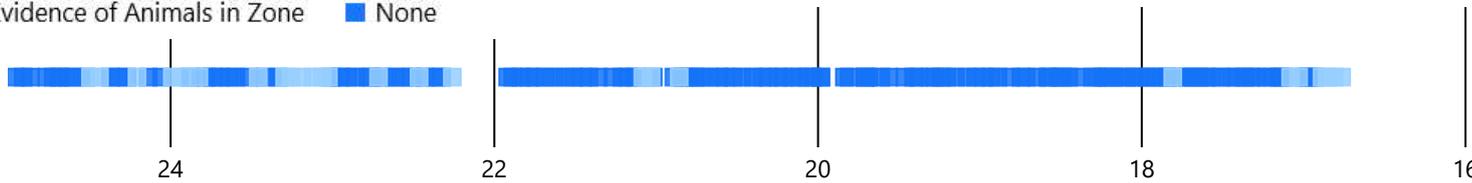
Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor *Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.*



Manure Presence

■ Evidence of Animals in Zone ■ None



Invasive Species

▲ Phragmites ■ Purple Loosestrife



Aquatic Vegetation

■ Both ▲ Emergent ● Submerged



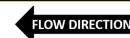
OVERALL SVAP RATING

CATTARAUGUS CREEK

Score ■ Excellent ■ Good ■ Mediocre



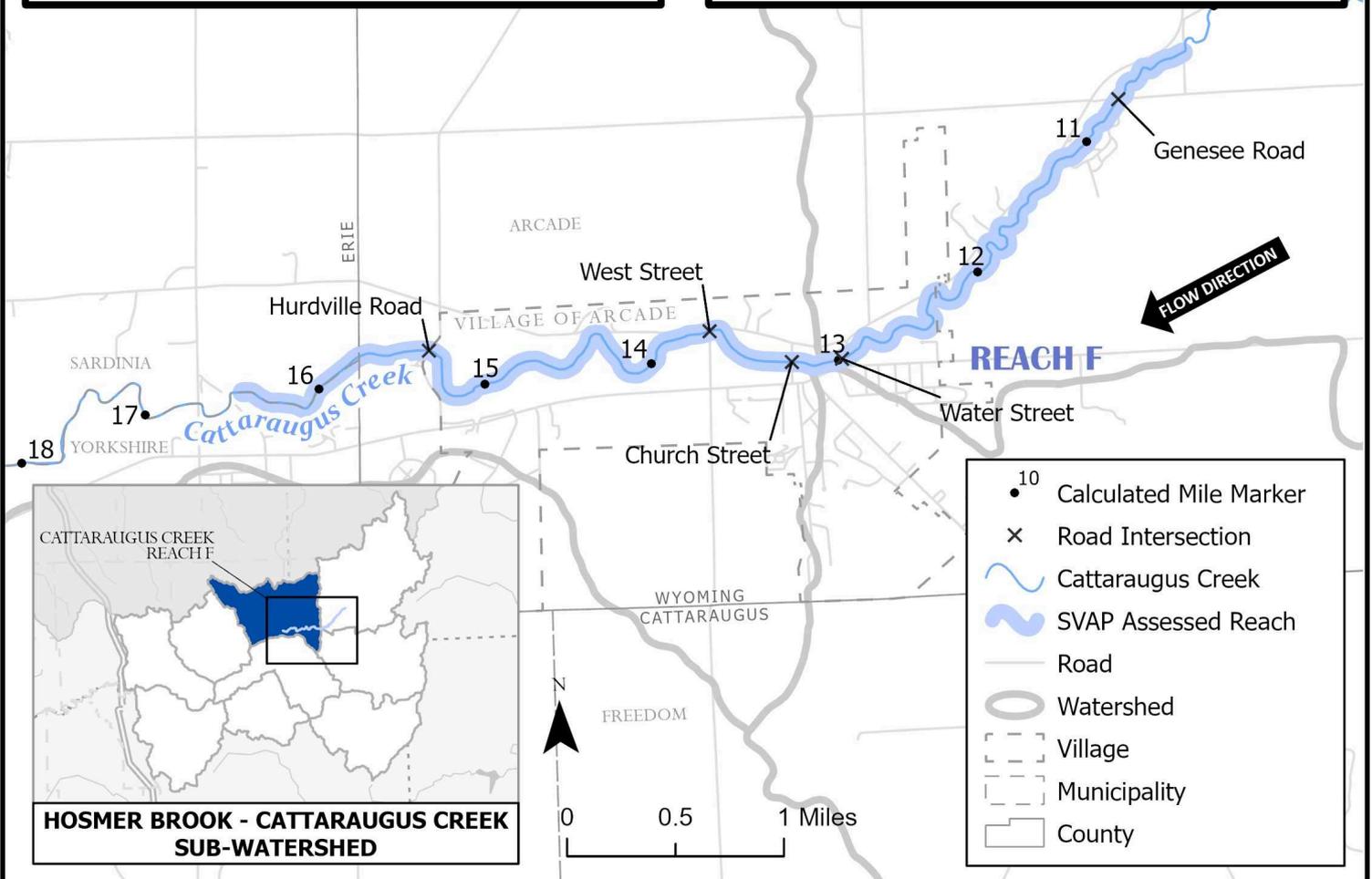
Creek Mile (24.95 at Tailwater, 16.76 at Headwater)



CATTARAUGUS CREEK

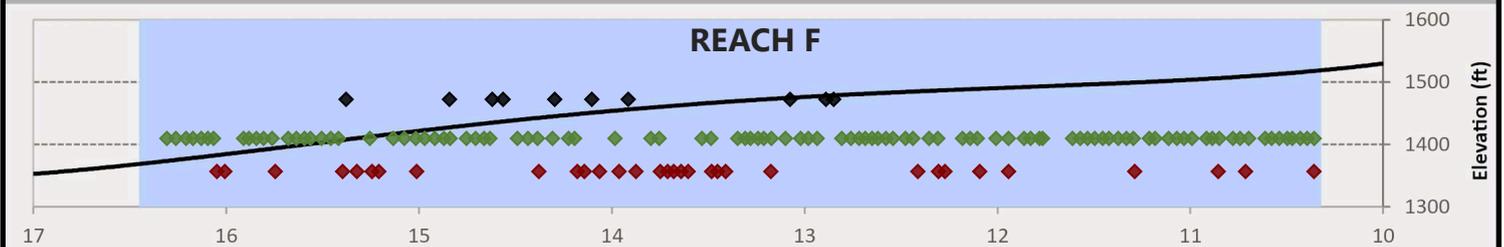
STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) FOR REACH F

AVERAGE OVERALL SVAP RATING: **7.2**

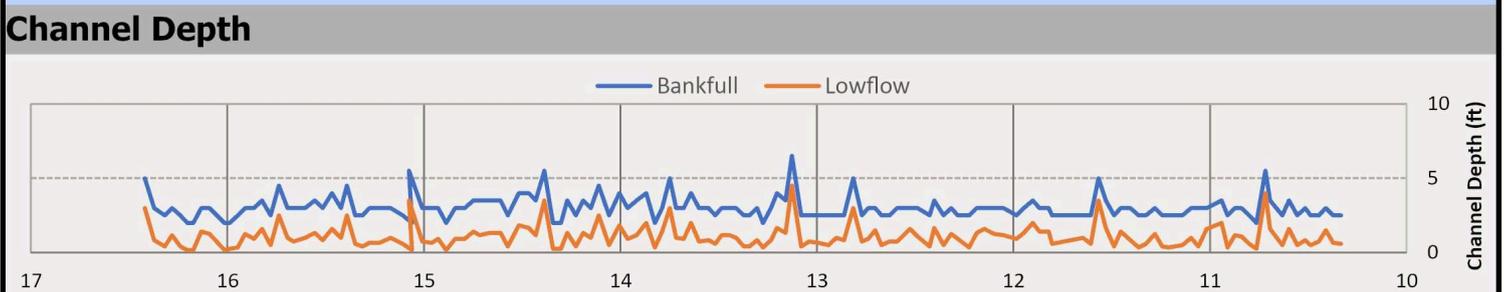


Elevation Profile

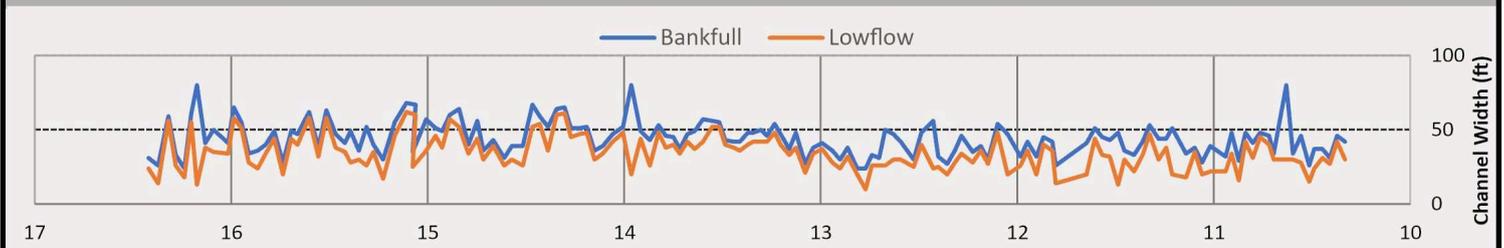
Substrate: ◆ Boulder ◆ Cobble ◆ Gravel



Channel Depth



Channel Width



← FLOW DIRECTION **Creek Mile (16.42 at Tailwater, 10.33 at Headwater)** ← FLOW DIRECTION

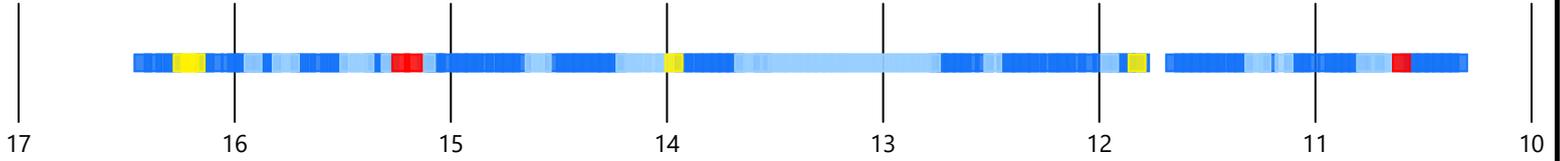
Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH F

Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Stream Bank Hardening

■ NO ■ YES



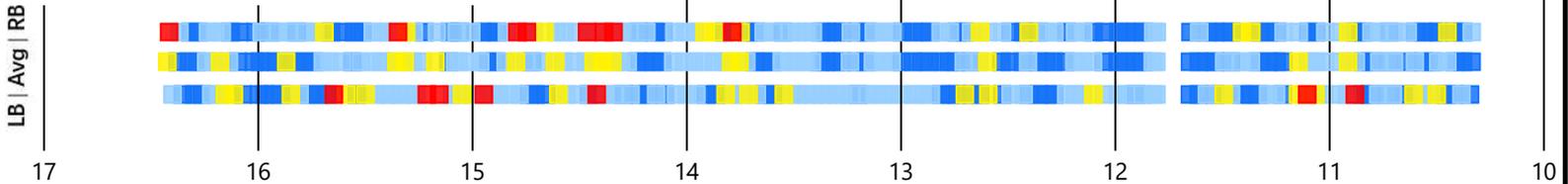
Aggradation/Incision

■ Aggradation ▲ Incision



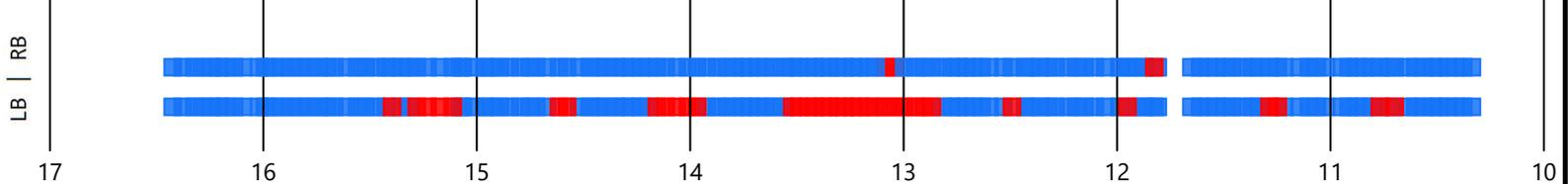
Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



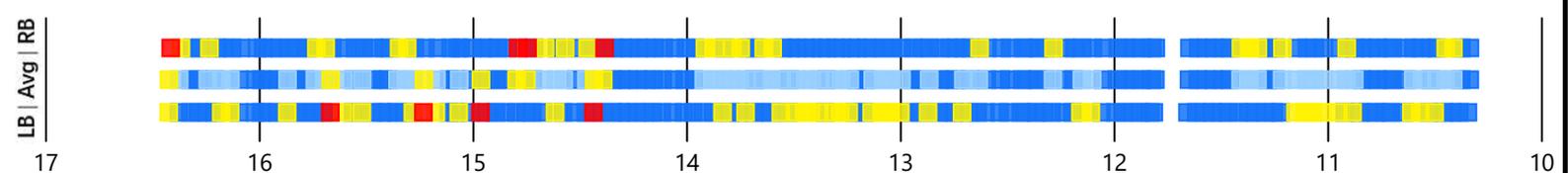
Bank Condition

■ Hardened Structure ■ Natural



Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre



REACH F

Water Appearance

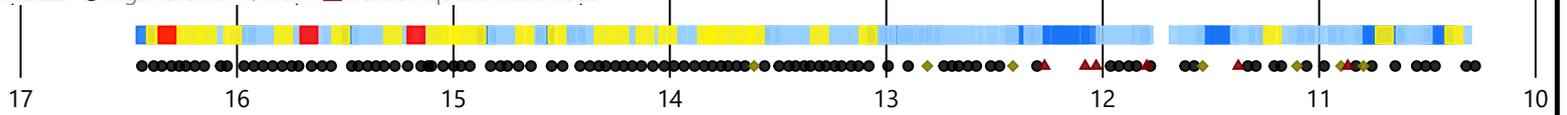
Score ■ Excellent ■ Good



Nutrient Enrichment

Score ■ Low ■ Mild ■ Moderate ■ Severe

NE Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds

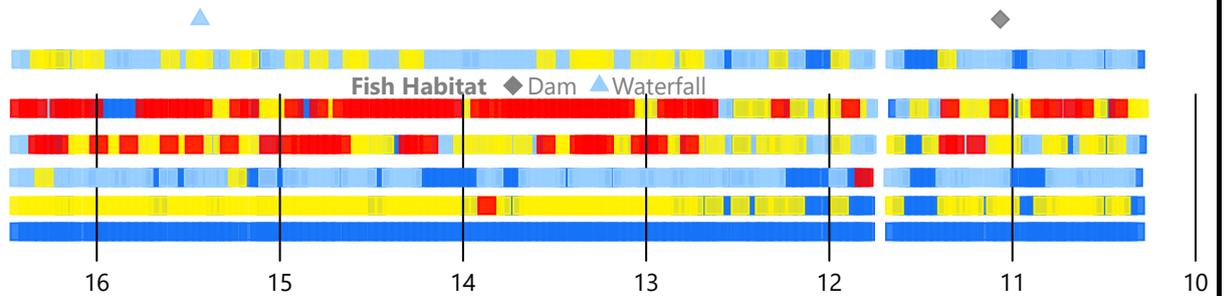


Fish Habitat

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.

OVERALL SCORE

- Canopy Cover
- Pools
- Invertebrate Habitat
- Instream Cover
- Riffle Embeddedness



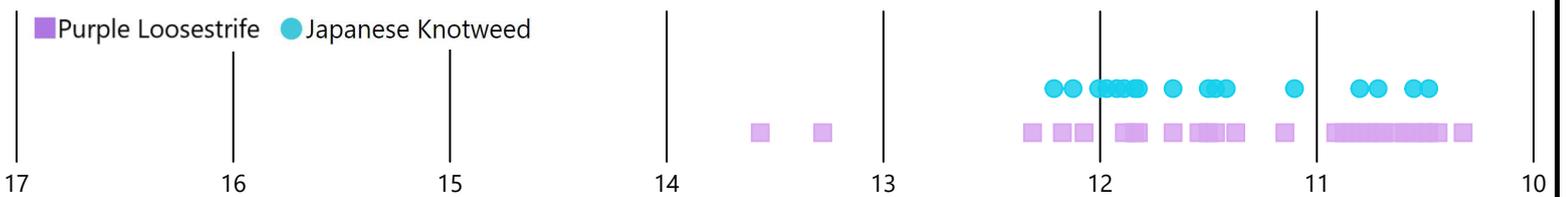
Manure Presence

■ Evidence of Animals in Zone ■ None



Invasive Species

■ Purple Loosestrife ● Japanese Knotweed



Aquatic Vegetation

■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

CATTARAUGUS CREEK

Score ■ Excellent ■ Good ■ Mediocre

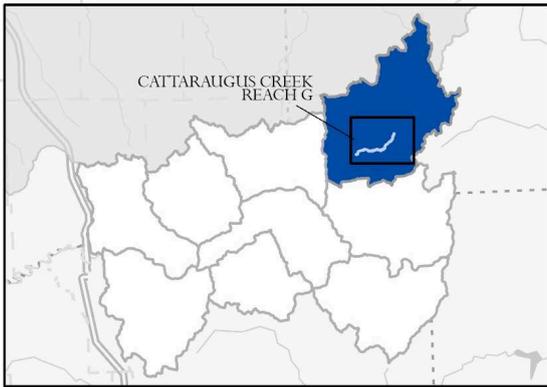


← FLOW DIRECTION Creek Mile (16.42 at Tailwater, 10.33 at Headwater) ← FLOW DIRECTION

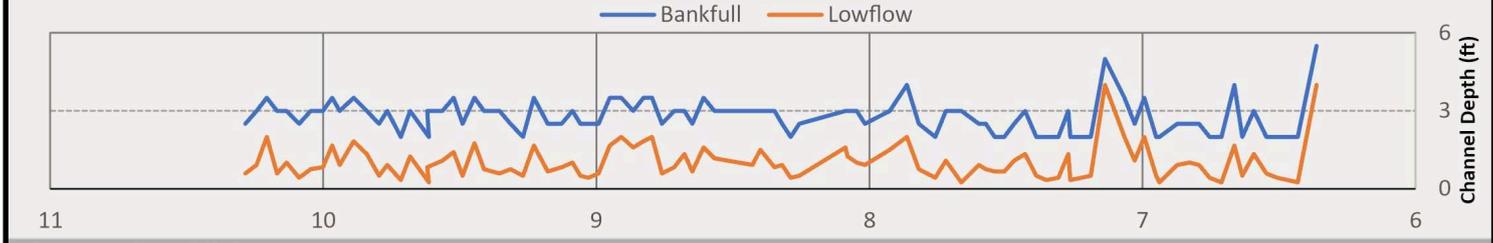
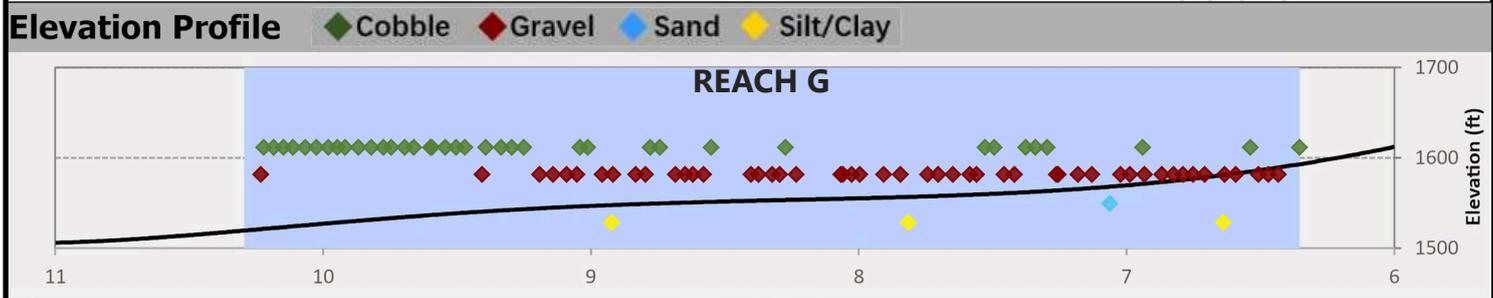
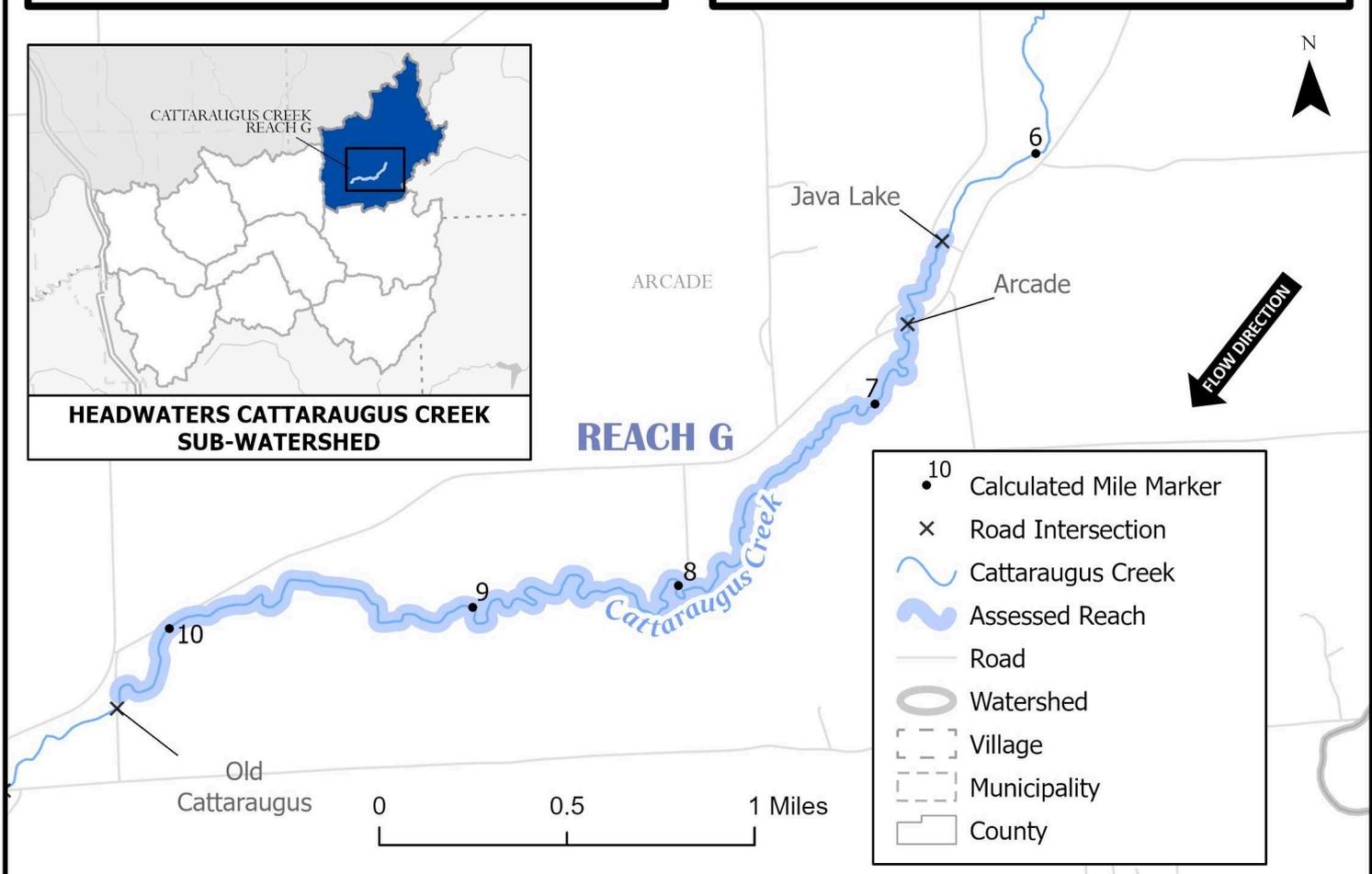
CATTARAUGUS CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) REACH G

AVERAGE OVERALL SVAP RATING: **8.1**



HEADWATERS CATTARAUGUS CREEK SUB-WATERSHED



← FLOW DIRECTION Creek Mile (10.28 at Tailwater, 6.36 at Headwater) → FLOW DIRECTION

Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH G

Stream Bank Hardening

Score ■ Excellent ■ Good ■ Poor



Stream Bank Hardening

■ NO ■ YES



Aggradation/Incision

■ Aggradation ▲ Incision



Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



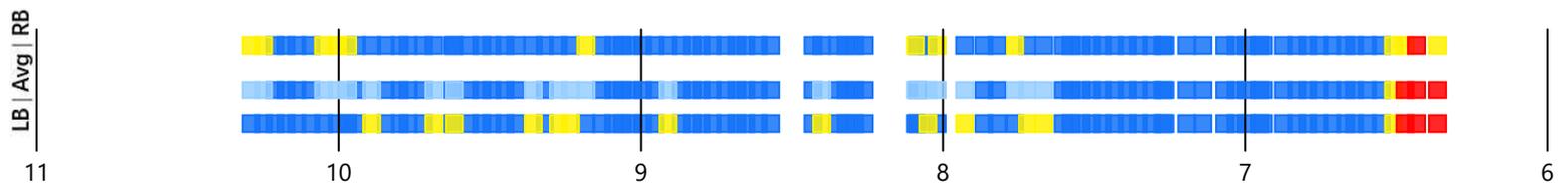
Bank Condition

■ Hardened Structure ■ Natural



Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Measure (Mile)

← FLOW DIRECTION Creek Mile (10.28 at Tailwater, 6.36 at Headwater) ← FLOW DIRECTION

REACH G

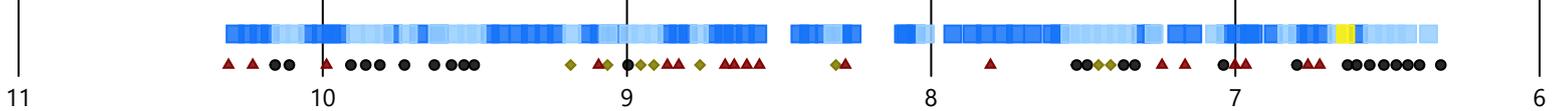
Water Appearance

Score ■ Excellent ■ Good



Nutrient Enrichment

Amount ■ Low ■ Mild ■ Moderate
NE Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds

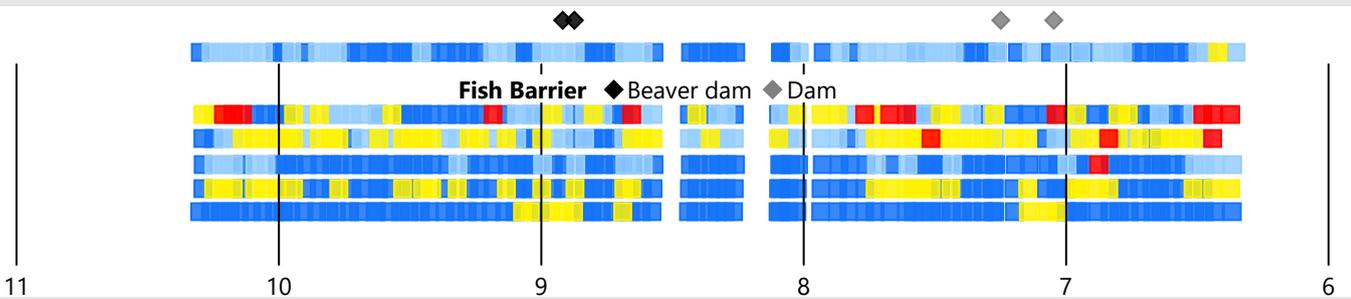


Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor *Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below*

OVERALL SCORE

- Canopy Cover
- Pools
- Invertebrate Habitat
- Instream Cover
- Riffle Embeddedness



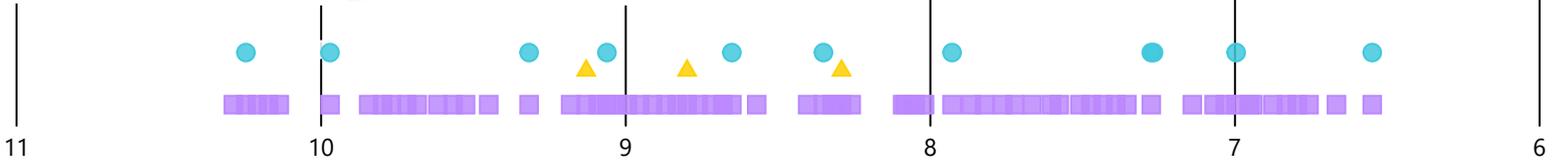
Manure Presence

■ Evidence of Animals in Zone ■ None



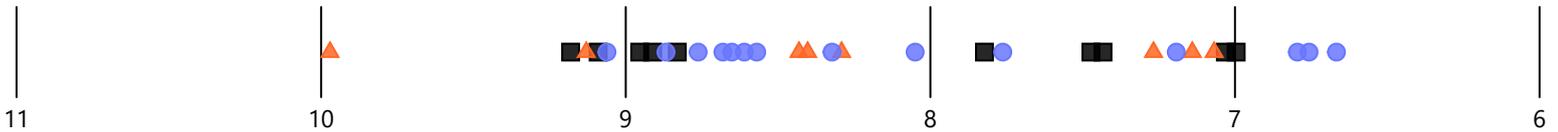
Invasive Species

● Japanese Knotweed ▲ Phragmites ■ Purple Loosestrife



Aquatic Vegetation

■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

CATTARAUGUS CREEK

■ Excellent ■ Good ■ Mediocre

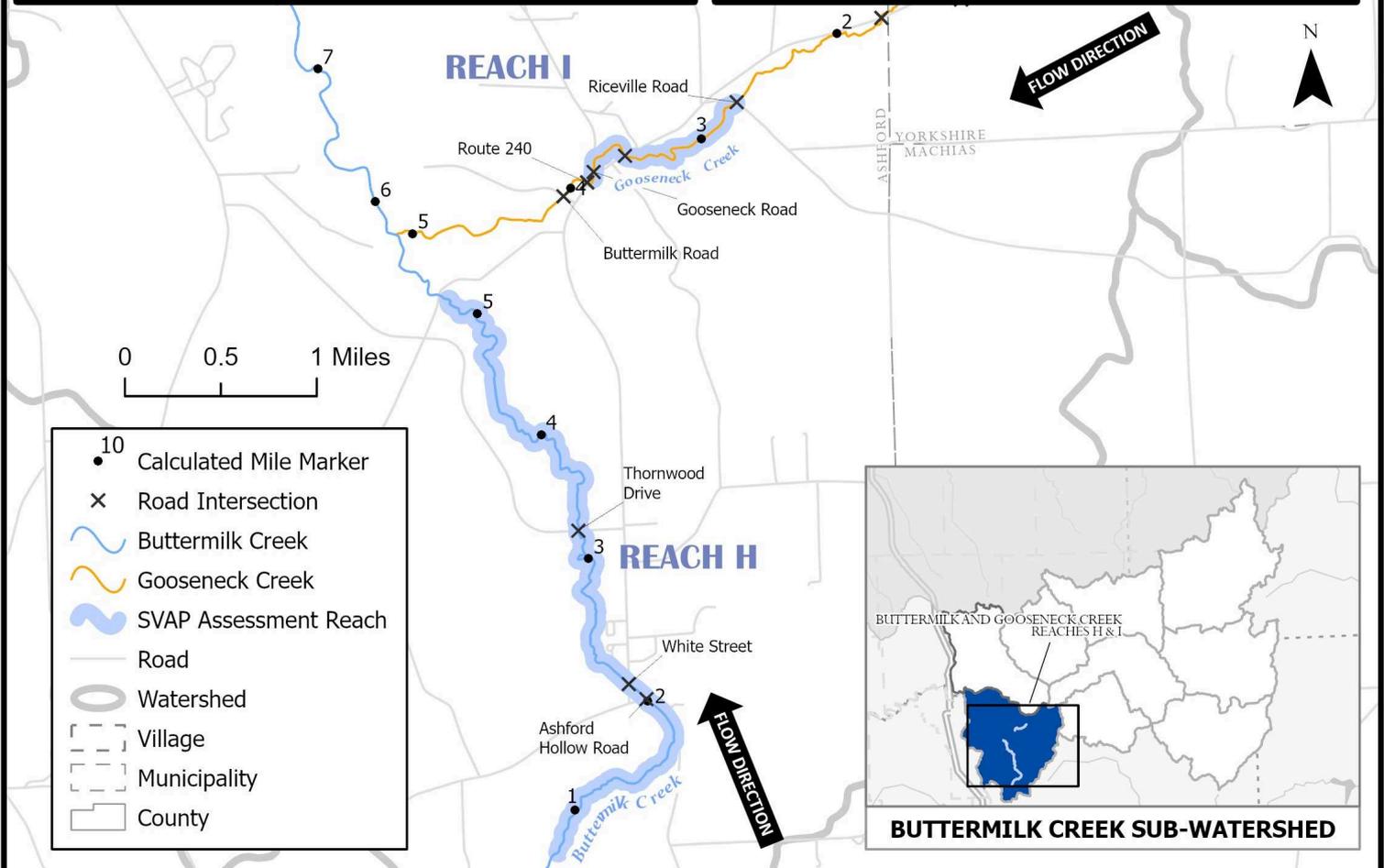


BUTTERMILK CREEK AND GOOSENECK CREEK

Stream Visual Assessment Protocol (SVAP) Reach H & I

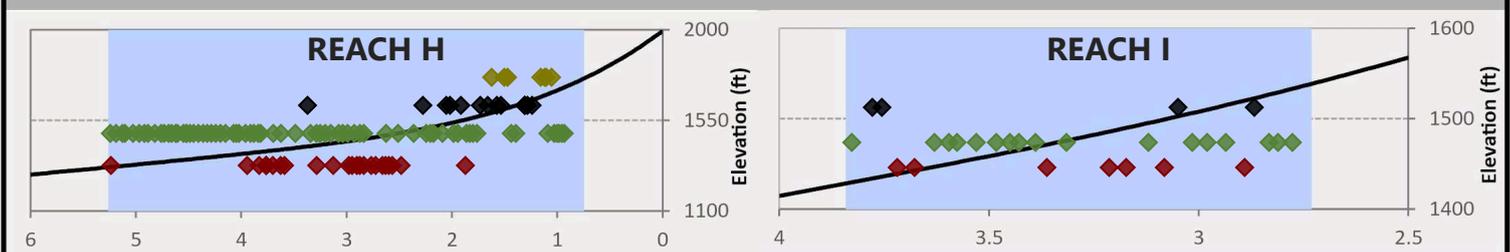
AVERAGE OVERALL SVAP RATING:

REACH H: **7.2**, REACH I: **7.1**

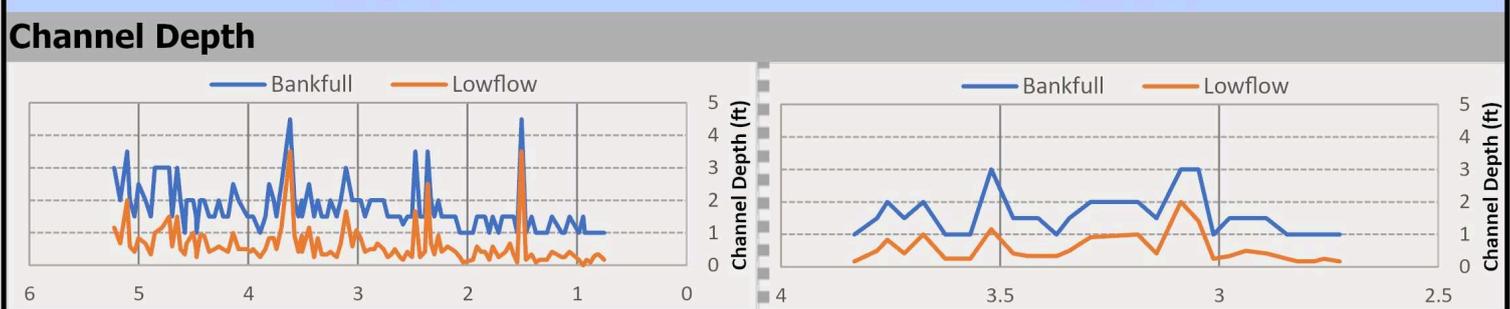


Elevation Profile

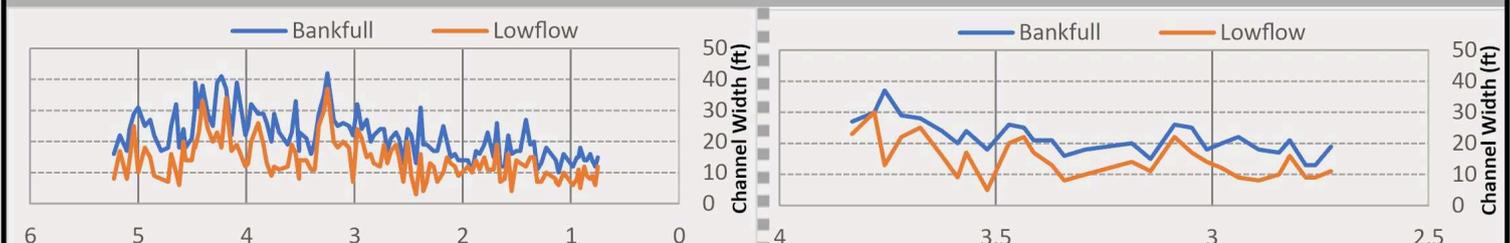
Substrate: ◆ Bedrock/Concrete ◆ Boulder ◆ Cobble ◆ Gravel



Channel Depth



Channel Width



← FLOW DIRECTION Creek Mile: Reach H (5.22 at Tailwater, 0.75 at Headwater), Reach I (3.83 at Tailwater, 2.73 at Headwater) → FLOW DIRECTION

Classification Scheme for SVAP Parameters

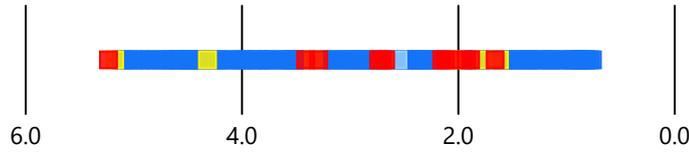
Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH H

REACH I

Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Score ■ Excellent ■ Good ■ Poor



Stream Bank Hardening

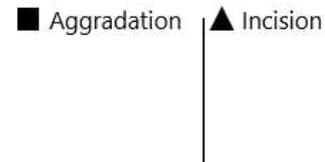
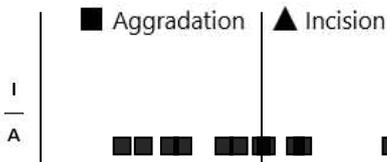
■ NO ■ YES



■ NO ■ YES

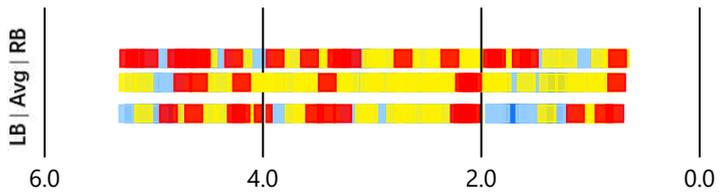


Aggradation/Incision

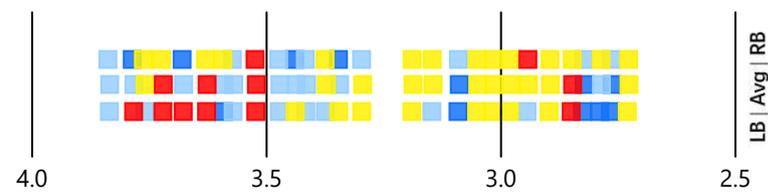


Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

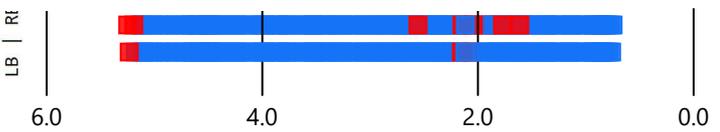


Score ■ Excellent ■ Good ■ Mediocre ■ Poor

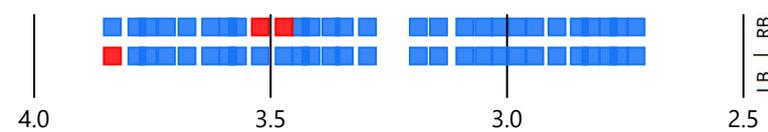


Bank Condition

■ Hardened Structure ■ Natural

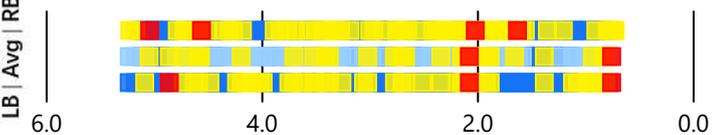


■ Hardened Structure ■ Natural

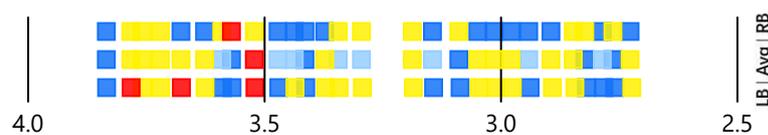


Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Score ■ Excellent ■ Good ■ Mediocre ■ Poor



← FLOW DIRECTION

Creek Mile: Reach H (5.22 at Tailwater, 0.75 at Headwater), Reach I (3.83 at Tailwater, 2.73 at Headwater)

← FLOW DIRECTION

REACH H

REACH I

Water Appearance

Score Excellent Good Mediocre



Score Excellent Good



Nutrient Enrichment

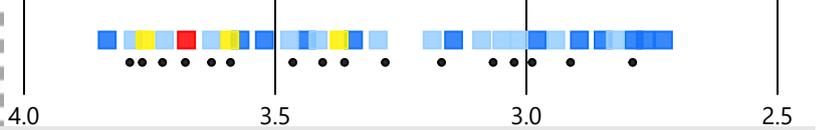
Score Low Mild Moderate Severe

NE Notes Algal Growth



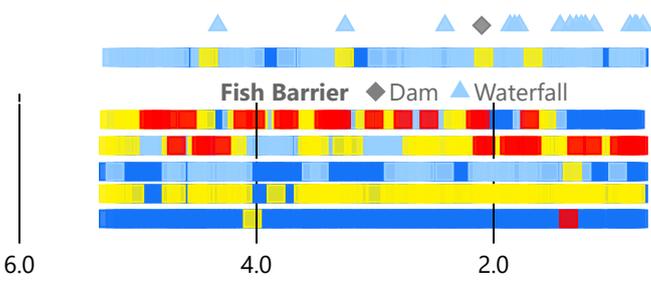
Score Low Mild Moderate Severe

NE Notes Algal growth



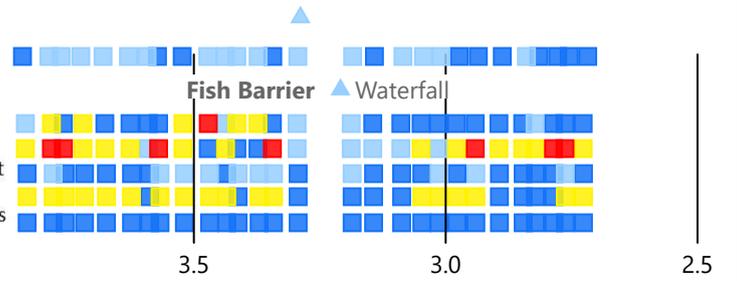
Fish Habitat Score Excellent Good Mediocre Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



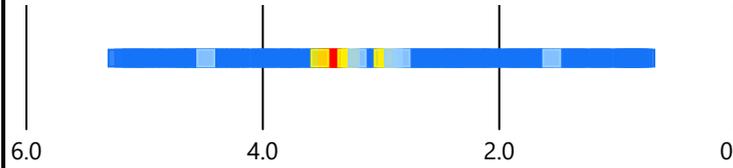
OVERALL SCORE

Canopy Cover Pools Invertebrate Habitat Instream Cover Riffle Embeddedness



Manure Presence

Extensive Manure/CFO Pipe Manure Present Evidence of Animals in Zone None

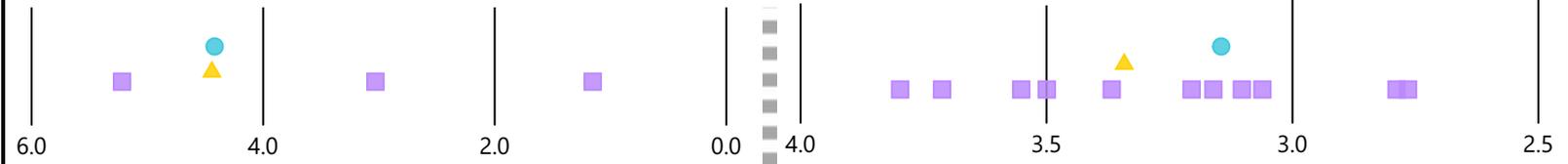


Manure Present Evidence of Animals in Zone None



Invasive Species

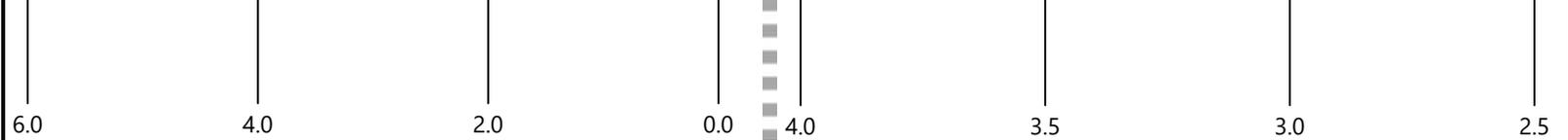
Japanese Knotweed Phragmites Purple Loosestrife



Aquatic Vegetation

None Observed

None Observed



OVERALL SVAP RATING

BUTTERMILK CREEK AND GOOSENECK CREEK

Score Excellent Good Mediocre



Score Excellent Good Mediocre

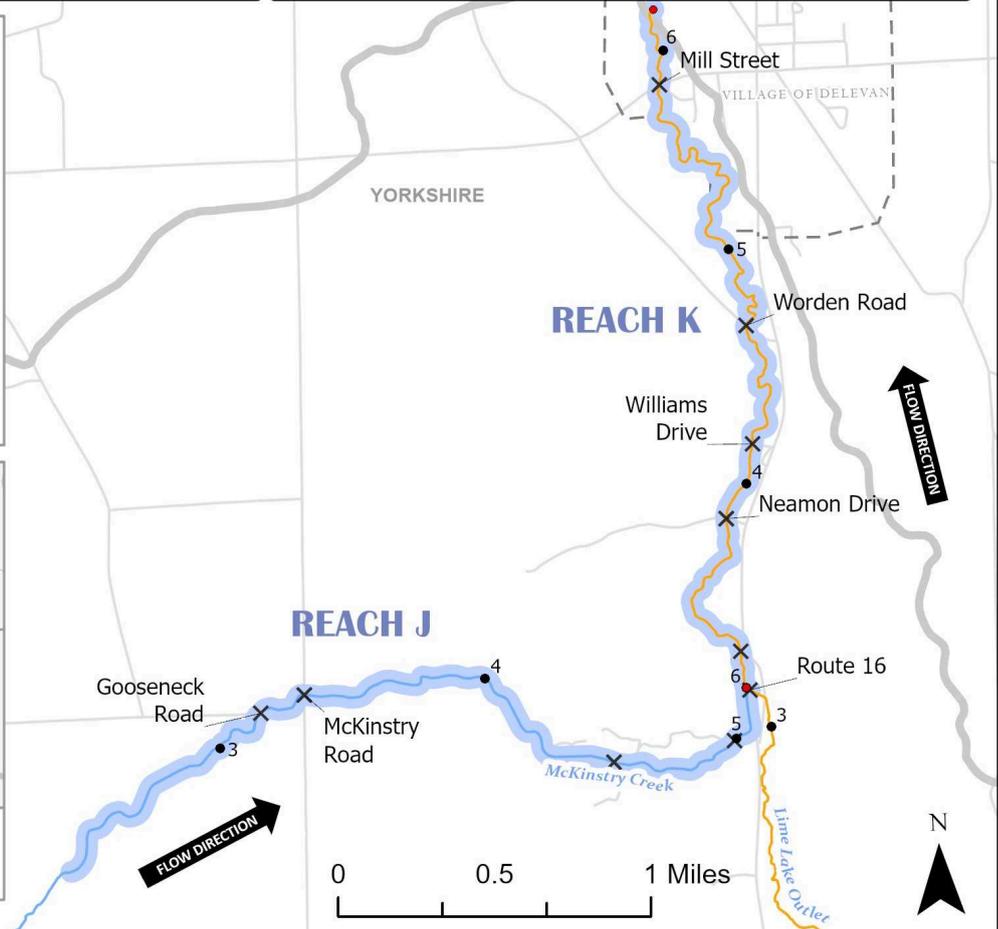
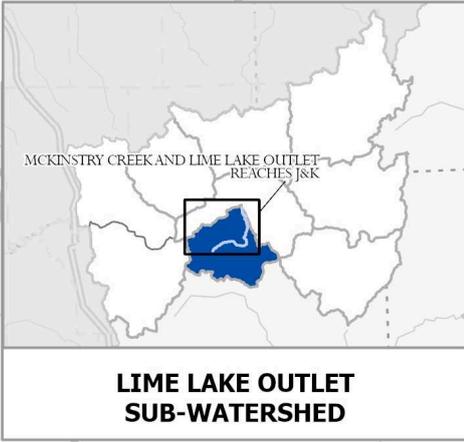


Creek Mile: Reach H (5.22 at Tailwater, 0.75 at Headwater), Reach I (3.83 at Tailwater, 2.73 at Headwater)

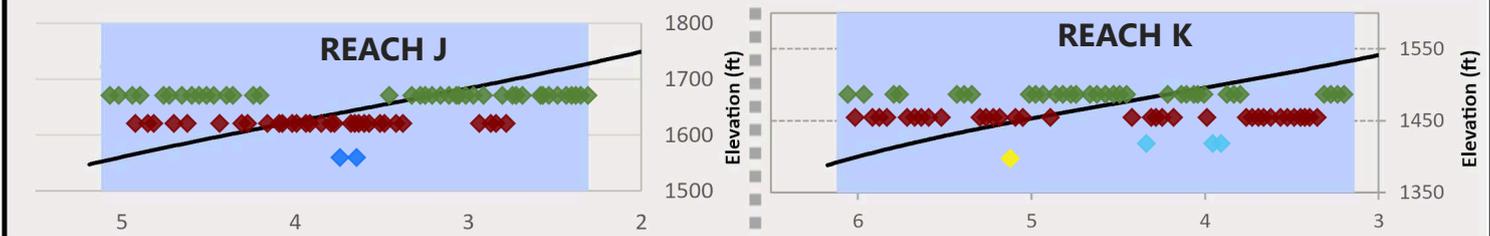
MCKINSTRY CREEK AND LIME LAKE OUTLET
Stream Visual Assessment Protocol (SVAP) Reach J & K

AVERAGE OVERALL SVAP RATING:
REACH J: **8.7**, REACH K: **8.3**

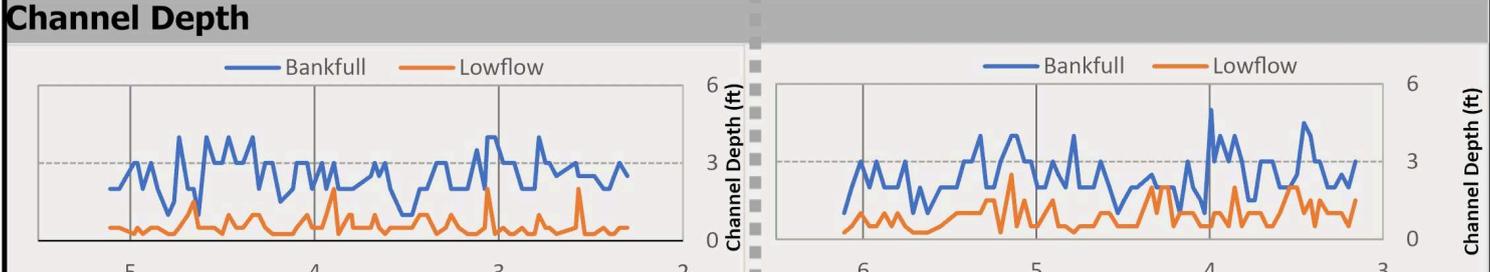
- 10 Calculated Mile Marker
- × Road Intersection
- Waterway Confluence/Name Change
- ~ McKinstry Creek
- ~ Lime Lake Outlet
- ~ SVAP Assessed Routes
- Road
- Watershed
- - - Village
- - - Municipality
- County



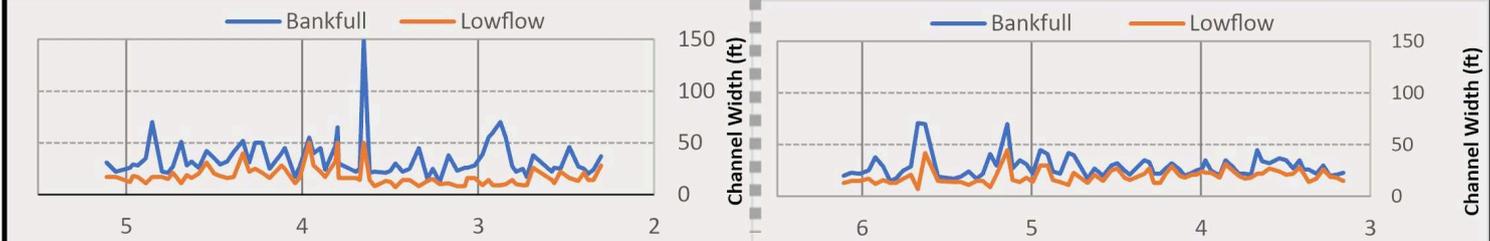
Elevation Profile Substrate: ◆ Cobble ◆ Gravel ◆ Sand ◆ Silt/Clay



Channel Depth



Channel Width

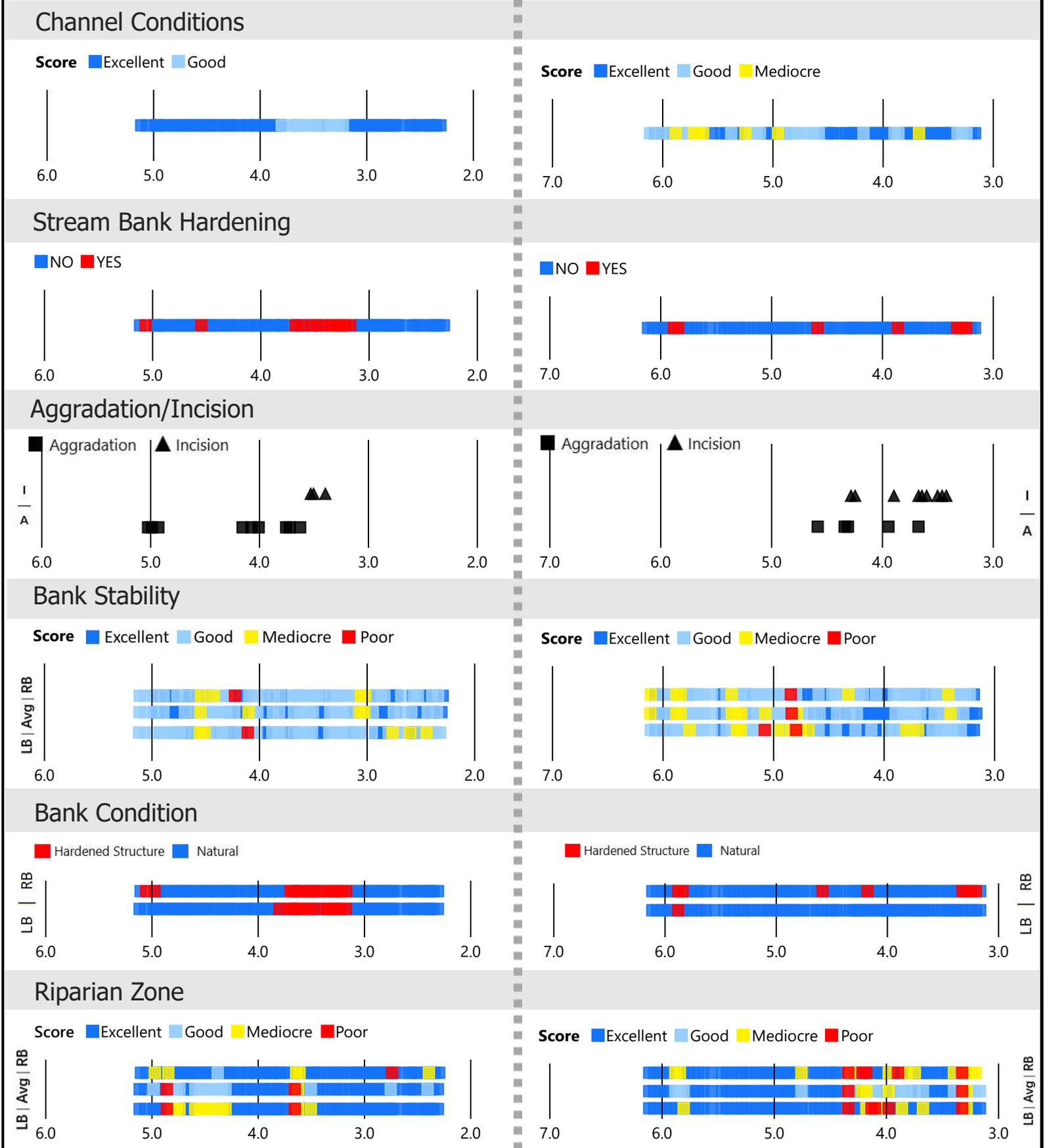


← FLOW DIRECTION Creek Mile: Reach J (5.10 at Tailwater, 2.30 at Headwater), Reach K (6.10 at Tailwater, 3.15 at Headwater) → FLOW DIRECTION

Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH J	REACH K
---------	---------



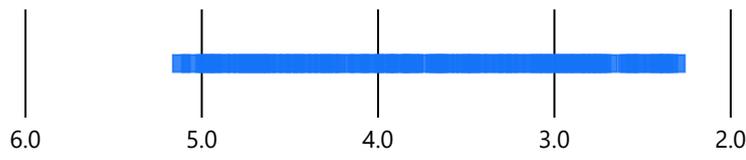
Creek Mile: Reach J (5.10 at Tailwater, 2.30 at Headwater), Reach K (6.10 at Tailwater, 3.15 at Headwater)

REACH J

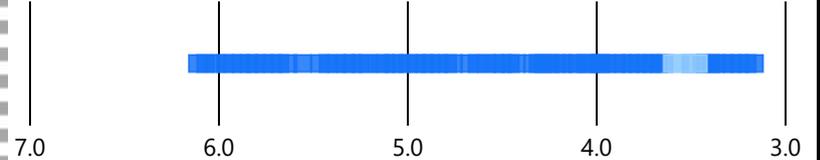
REACH K

Water Appearance

Score ■ Excellent

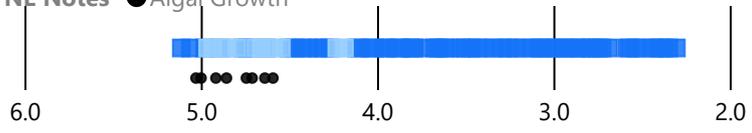


Score ■ Excellent ■ Good

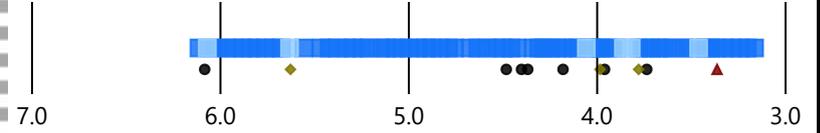


Nutrient Enrichment

Score ■ Low ■ Mild
NE Notes ● Algal Growth



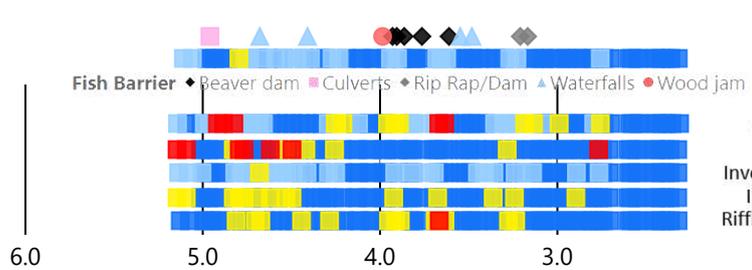
Score ■ Low ■ Mild
NE Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plants



Fish Habitat

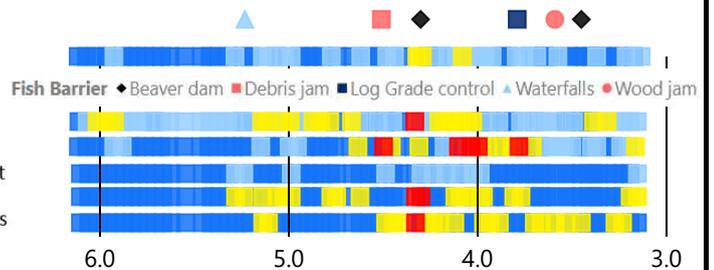
Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



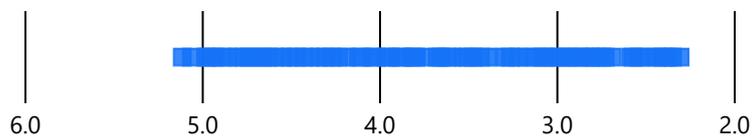
OVERALL SCORE

Canopy Cover
Pools
Invertebrate Habitat
Instream Cover
Riffle Embeddedness

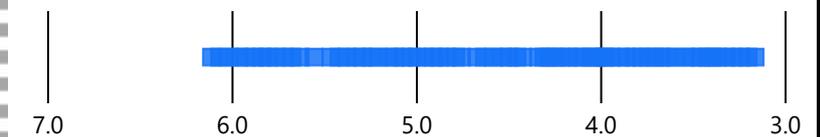


Manure Presence

■ Evidence of Animals in Zone ■ None

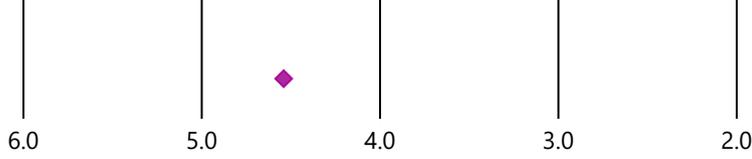


■ None

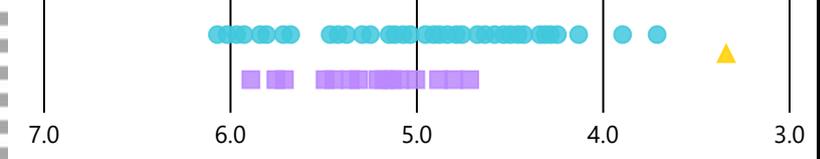


Invasive Species

◆ Multiflora rose

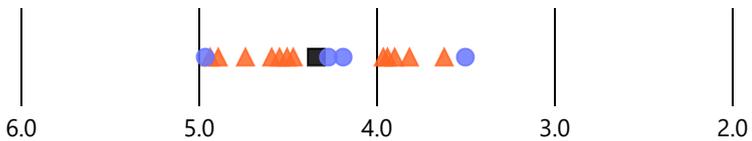


● Japanese Knotweed ▲ Phragmites ■ Purple Loosestrife

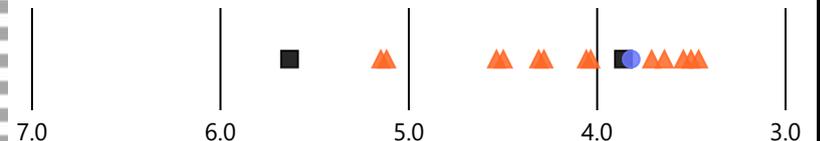


Aquatic Vegetation

■ Both ▲ Emergent ● Submerged



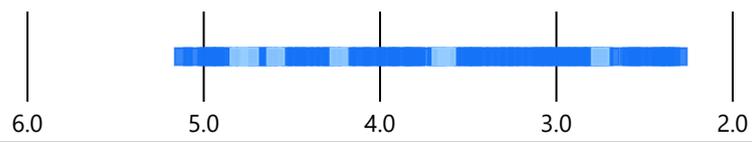
■ Both ▲ Emergent ● Submerged



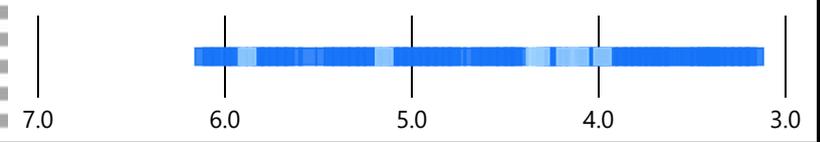
OVERALL SVAP RATING

MCKINSTRY CREEK AND LIME LAKE OUTLET

Score ■ Excellent ■ Good



Score ■ Excellent ■ Good



← FLOW DIRECTION

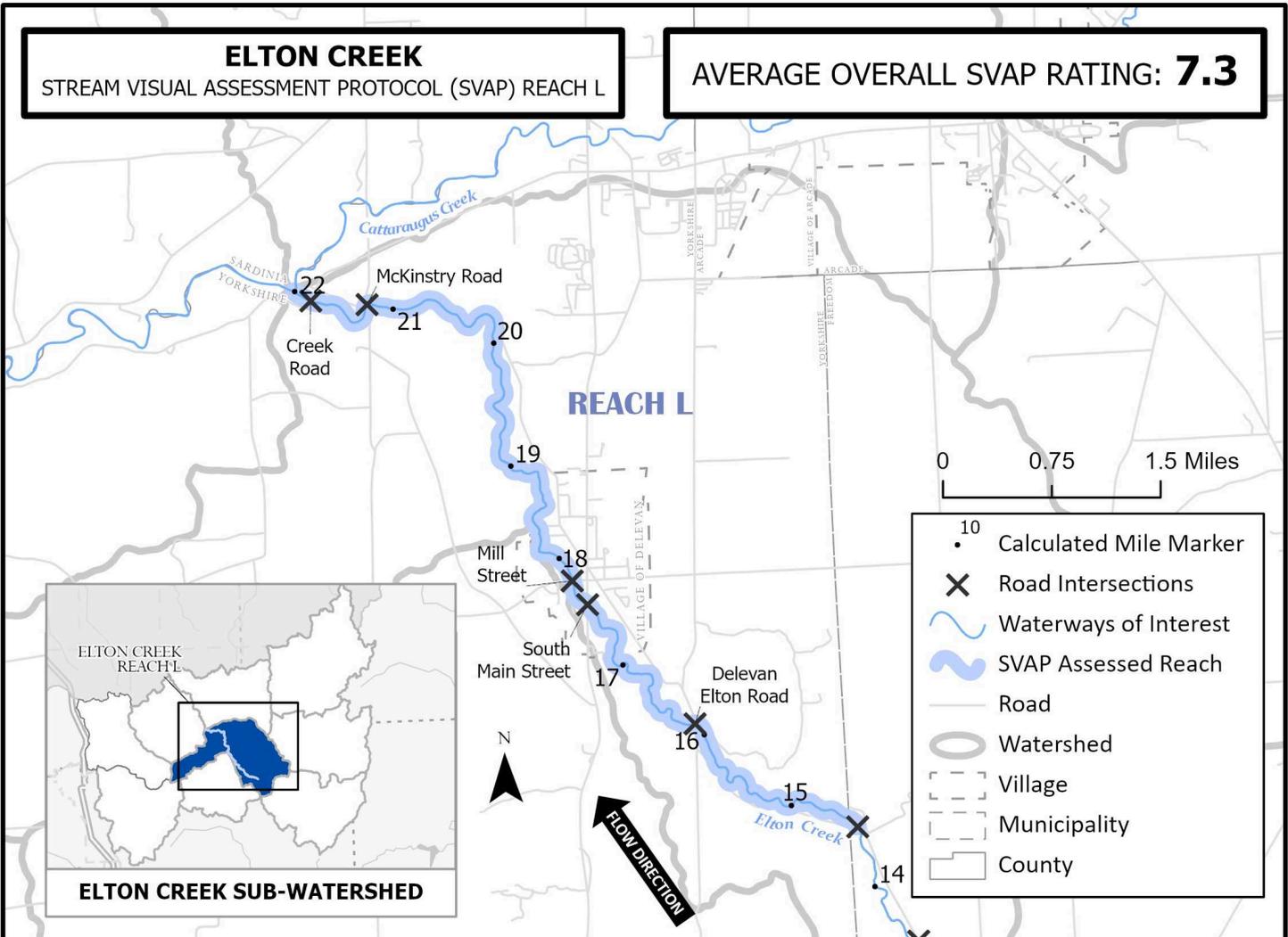
Creek Mile: Reach J (5.10 at Tailwater, 2.30 at Headwater) Reach K (6.10 at Tailwater, 3.15 at Headwater)

← FLOW DIRECTION

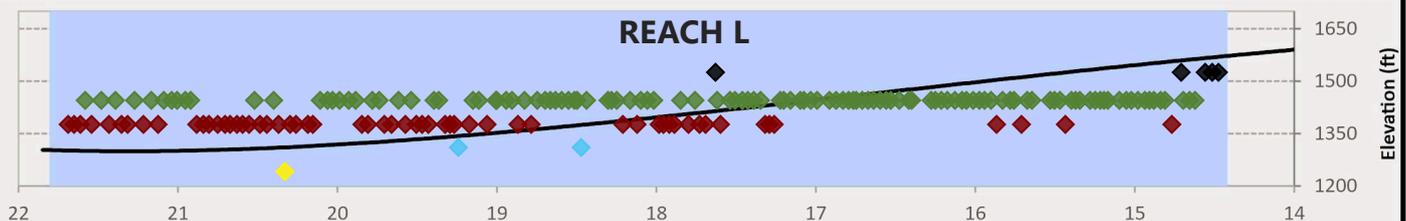
ELTON CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) REACH L

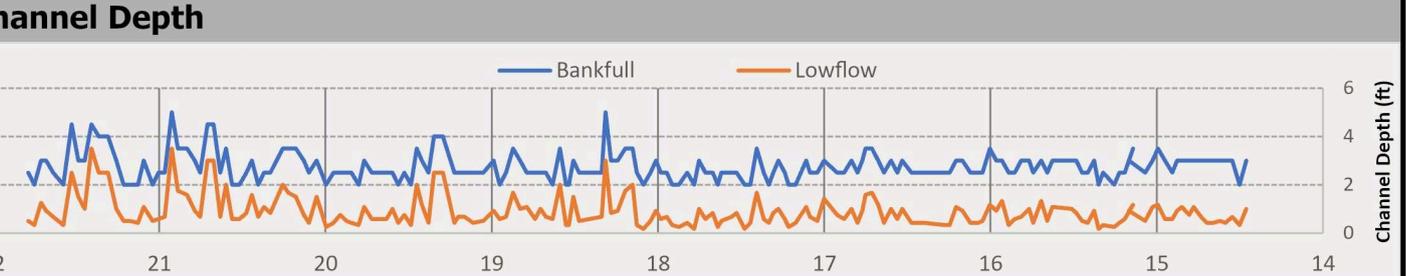
AVERAGE OVERALL SVAP RATING: **7.3**



Elevation Profile Substrate: ◆ Boulder ◆ Cobble ◆ Gravel ◆ Sand ◆ Silt/Clay



Channel Depth



Channel Width



← FLOW DIRECTION

Creek Mile: Reach L (21.80 at Tailwater, 14.40 at Headwater)

← FLOW DIRECTION

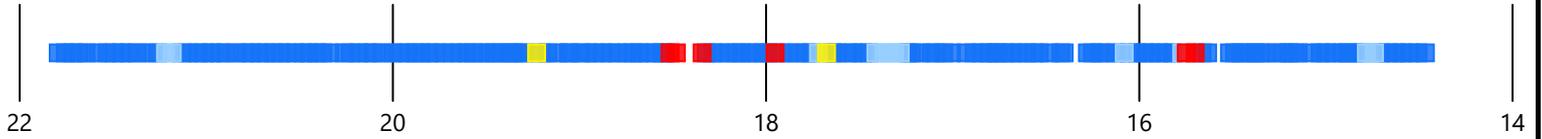
Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH L

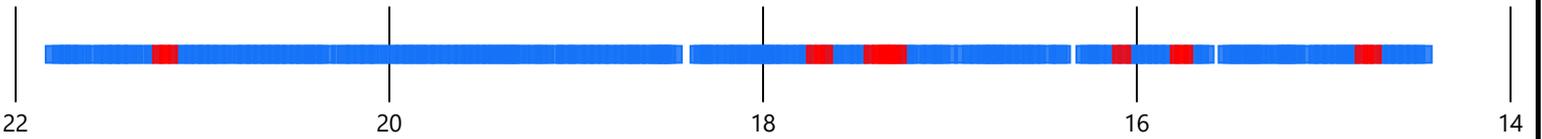
Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Stream Bank Hardening

■ NO ■ YES



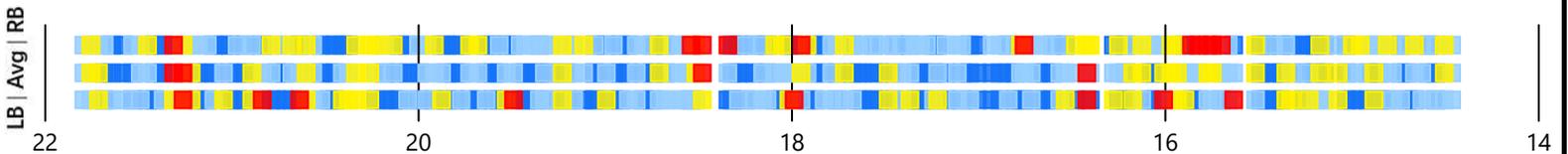
Aggradation/Incision

■ Aggradation ▲ Incision



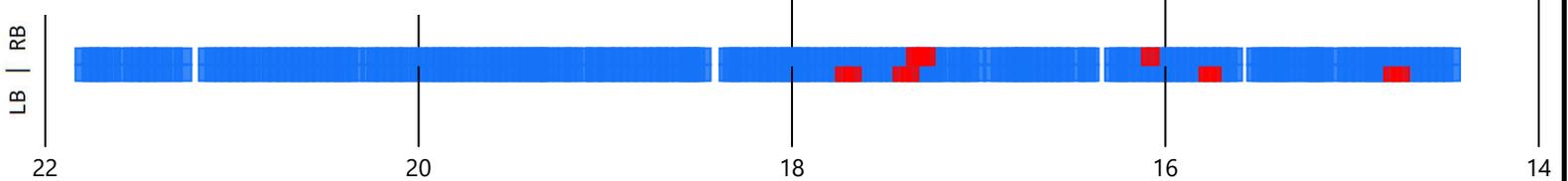
Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



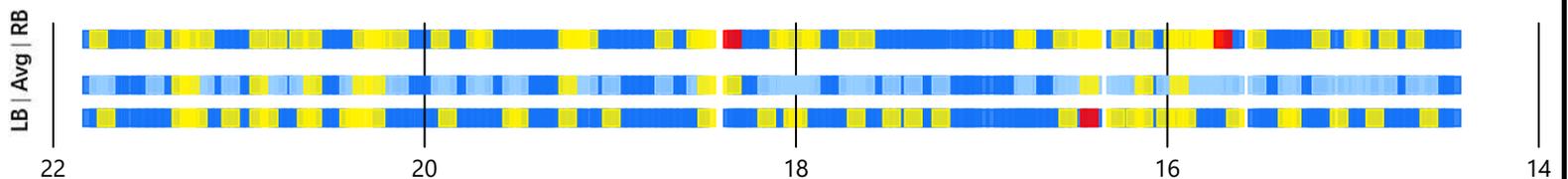
Bank Condition

■ Hardened Structure ■ Natural



Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre

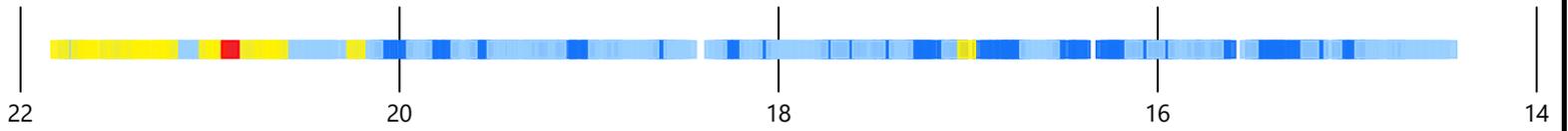


← FLOW DIRECTION
Creek Mile (21.80 at Tailwater, 14.40 at Headwater)
FLOW DIRECTION →

REACH L

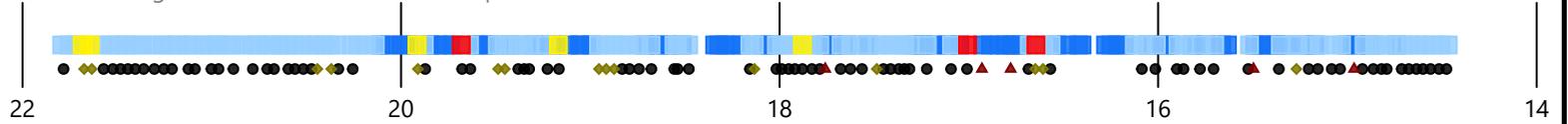
Water Appearance

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Nutrient Enrichment

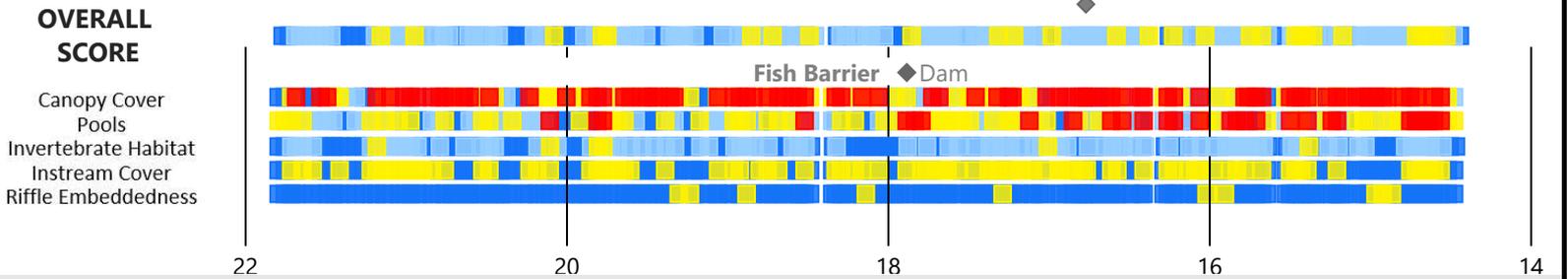
Low ■ Mild ■ Moderate ■ Severe ■
NE Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds



Fish Habitat

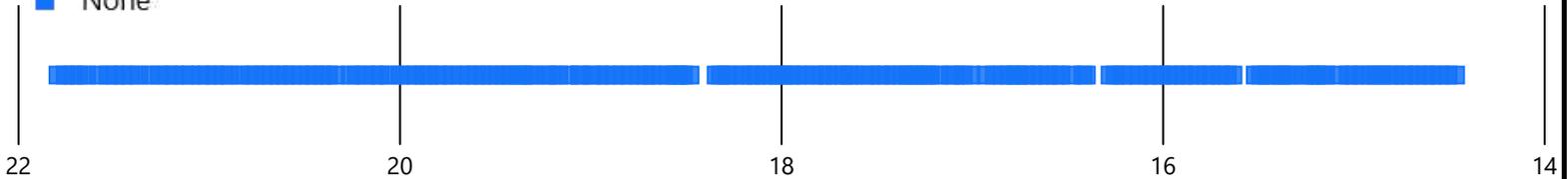
Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



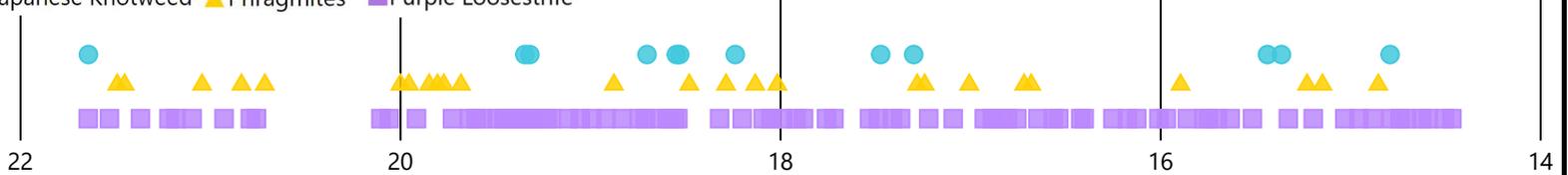
Manure Presence

■ None



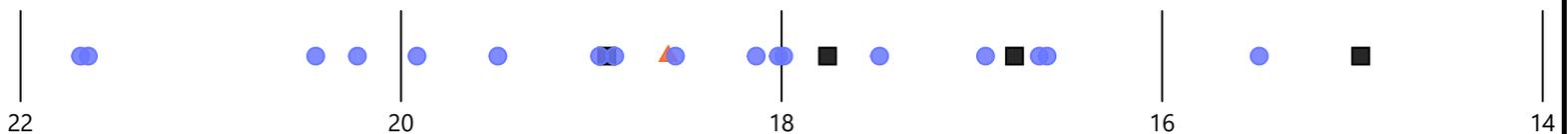
Invasive Species

● Japanese Knotweed ▲ Phragmites ■ Purple Loosestrife



Aquatic Vegetation

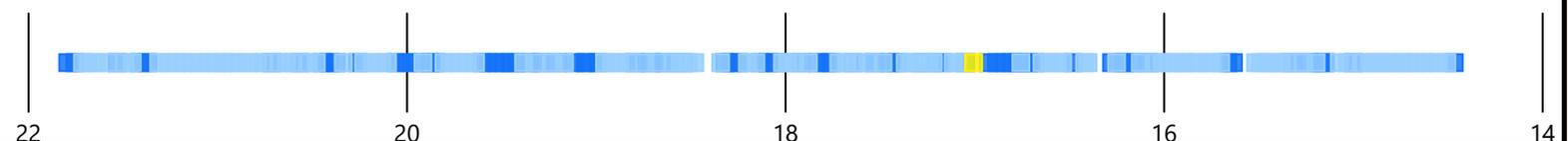
■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

ELTON CREEK

Score ■ Excellent ■ Good ■ Mediocre

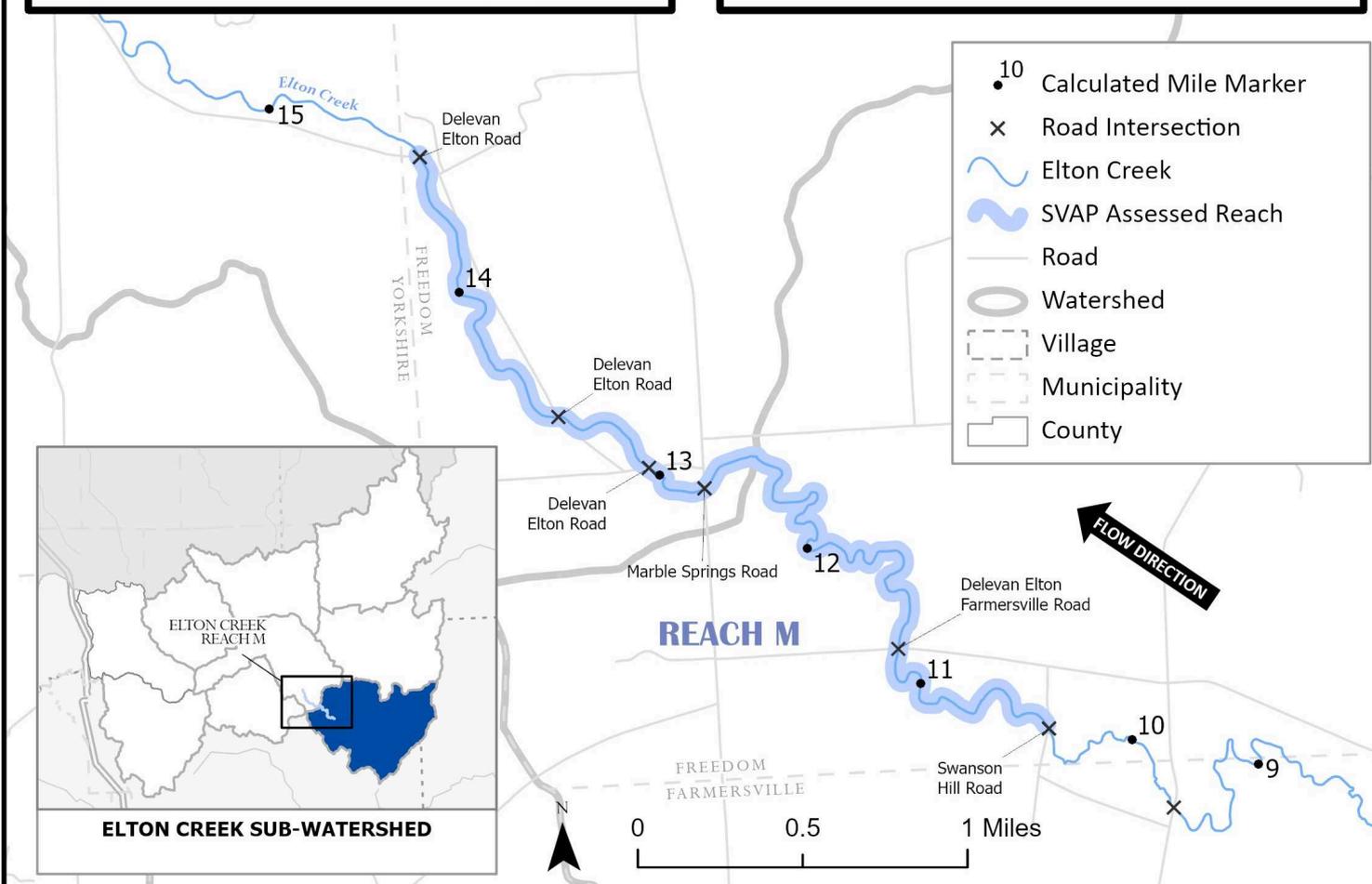


← FLOW DIRECTION Creek Mile (21.80 at Tailwater, 14.40 at Headwater) ← FLOW DIRECTION

ELTON CREEK

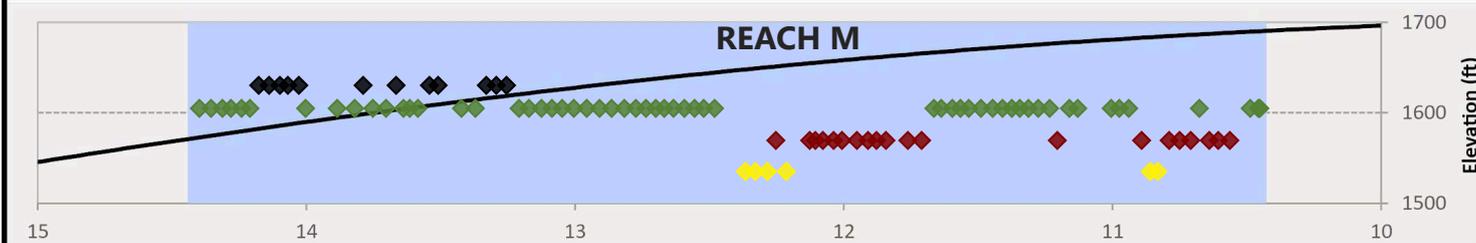
STREAM VISUAL ASSESSMENT PROTOCOL(SVAP) REACH M

AVERAGE OVERALL SVAP RATING: **7.3**

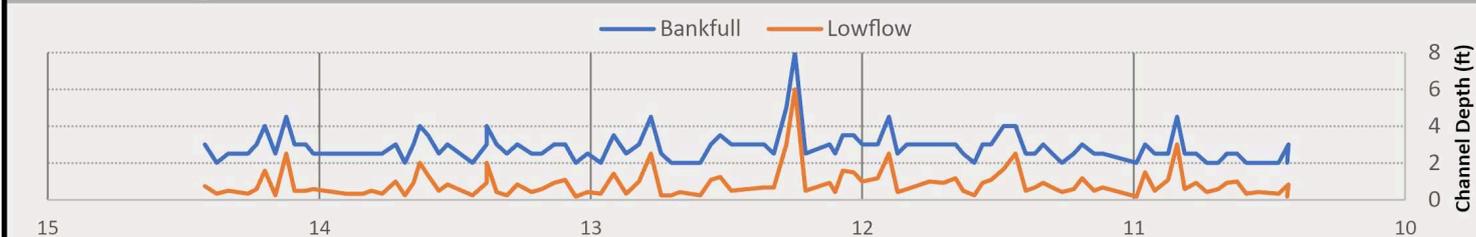


Elevation Profile

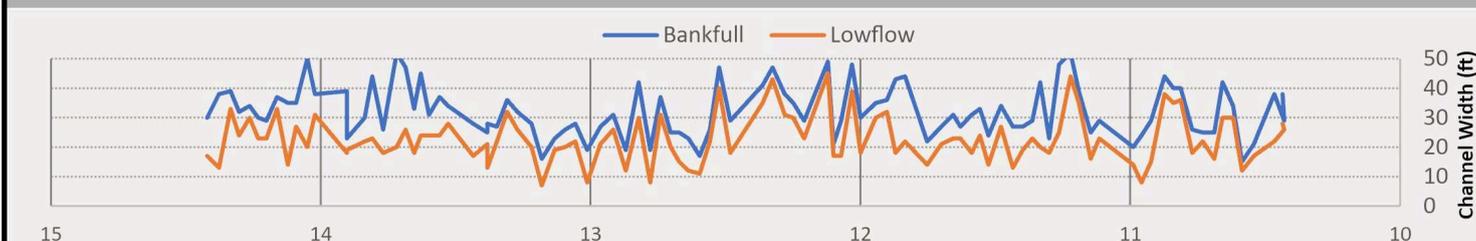
Substrate: ◆ Boulder ◆ Cobble ◆ Gravel ◆ Silt/Clay



Channel Depth



Channel Width



← FLOW DIRECTION Creek Mile: Reach M (14.40 at Tailwater, 10.40 at Headwater) → FLOW DIRECTION

Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH M

Channel Conditions

Score ■ Excellent ■ Good ■ Poor



Stream Bank Hardening

■ NO ■ YES



Aggradation/Incision

■ Aggradation ▲ Incision



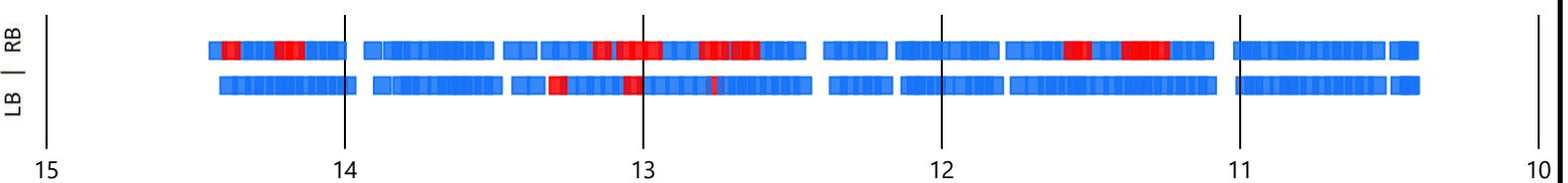
Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



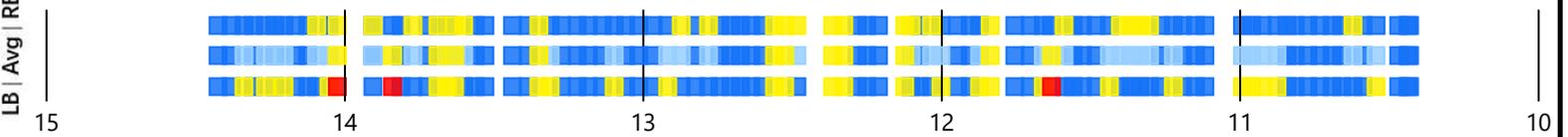
Bank Condition

■ Hardened Structure ■ Natural



Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



← FLOW DIRECTION
Creek Mile (14.40 at Tailwater, 10.40 at Headwater)
FLOW DIRECTION →

REACH M

Water Appearance

Score ■ Excellent ■ Good ■ Mediocre



Nutrient Enrichment

Low ■ Mild ■ Moderate ■
NE Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds

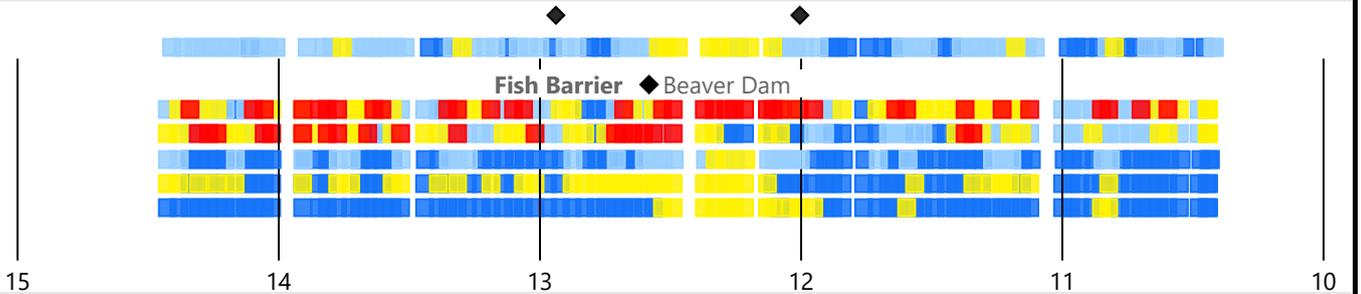


Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.

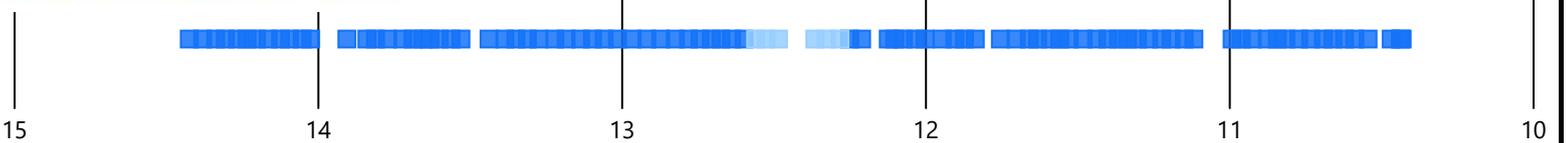
OVERALL SCORE

- Canopy Cover
- Pools
- Invertebrate Habitat
- Instream Cover
- Riffle Embeddedness



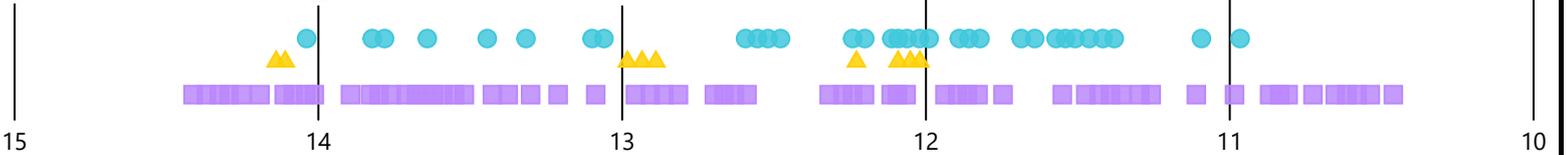
Manure Presence

■ Evidence of Animals in Zone ■ None



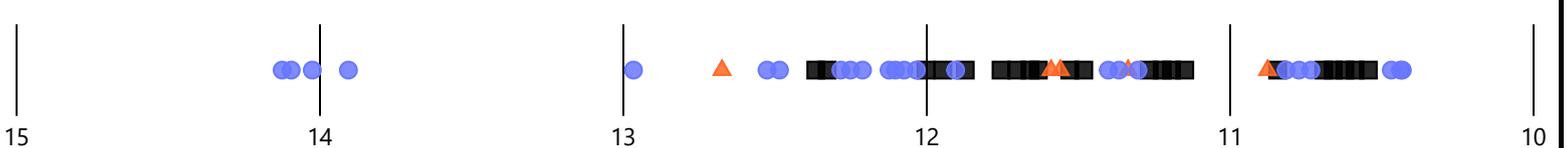
Invasive Species

● Japanese Knotweed ▲ Phragmites ■ Purple Loosestrife



Aquatic Vegetation

■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

ELTON CREEK

Score ■ Excellent ■ Good ■ Mediocre

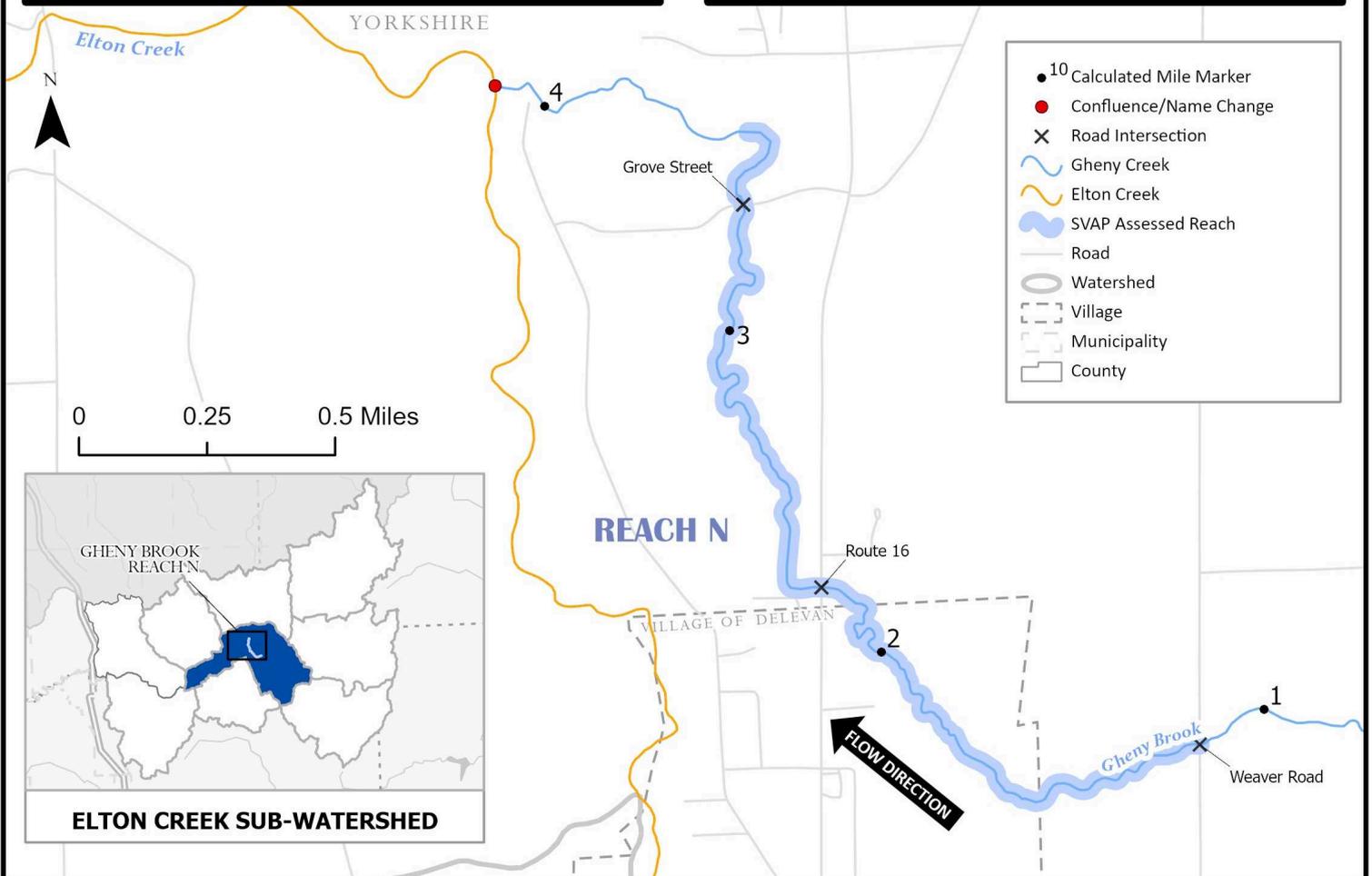


← FLOW DIRECTION Creek Mile (14.40 at Tailwater, 10.40 at Headwater) FLOW DIRECTION →

GHENY BROOK

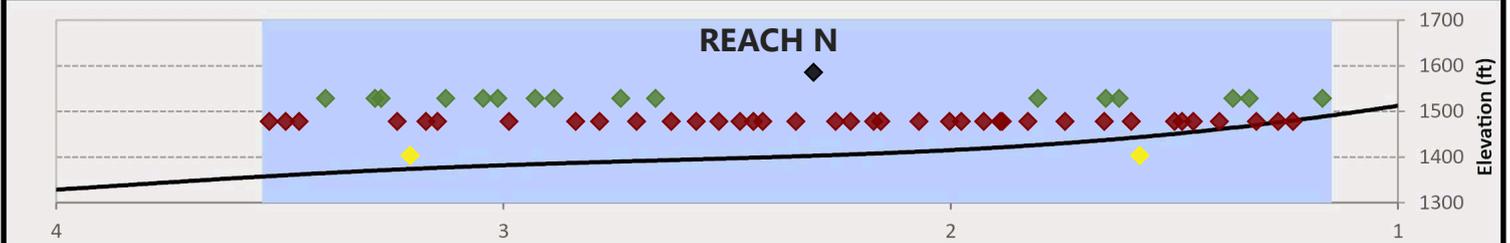
STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) REACH N

AVERAGE OVERALL SVAP RATING: **7.2**

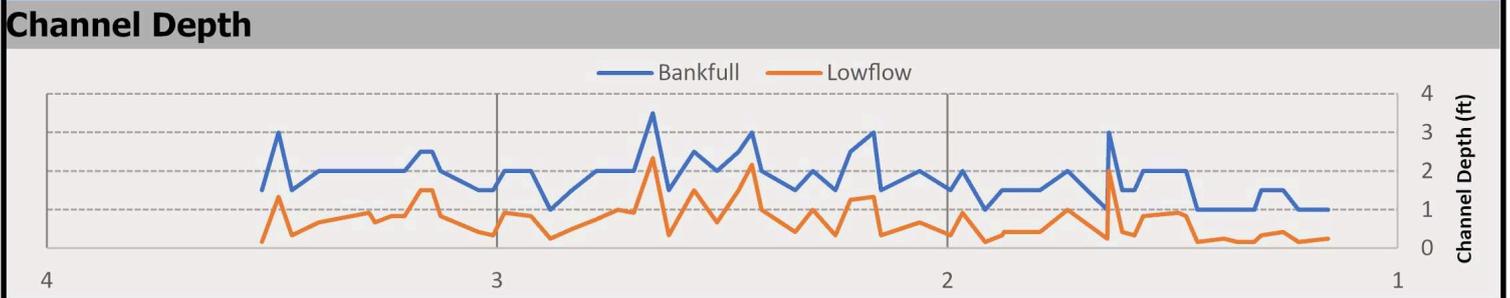


Elevation Profile

Substrate: ◆ Boulder ◆ Cobble ◆ Gravel ◆ Silt/Clay



Channel Depth



Channel Width



← FLOW DIRECTION Creek Mile: Reach N (3.50 at Tailwater, 1.15 at Headwater) FLOW DIRECTION →

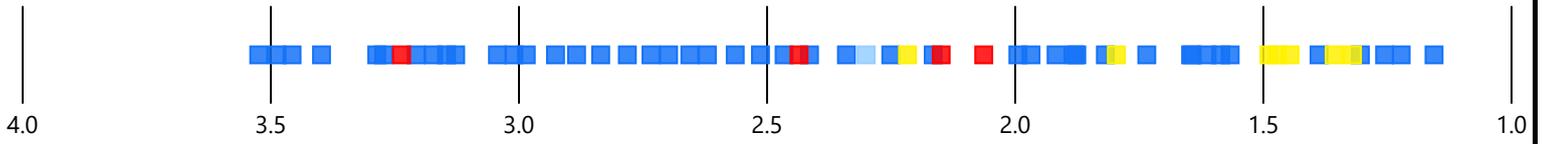
Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH N

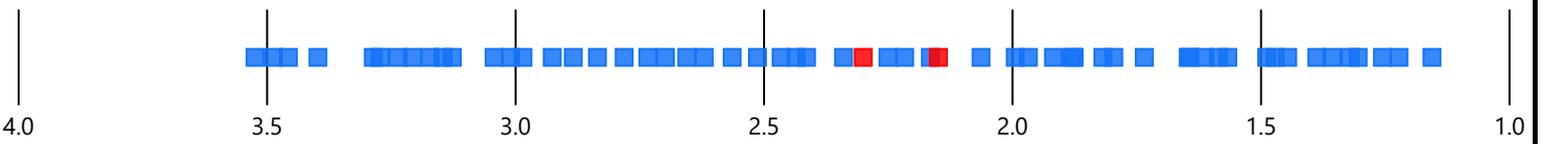
Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Stream Bank Hardening

■ NO ■ YES



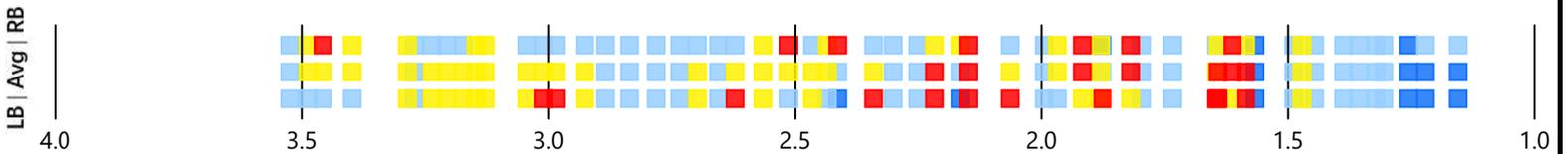
Aggradation/Incision

■ Aggradation ▲ Incision



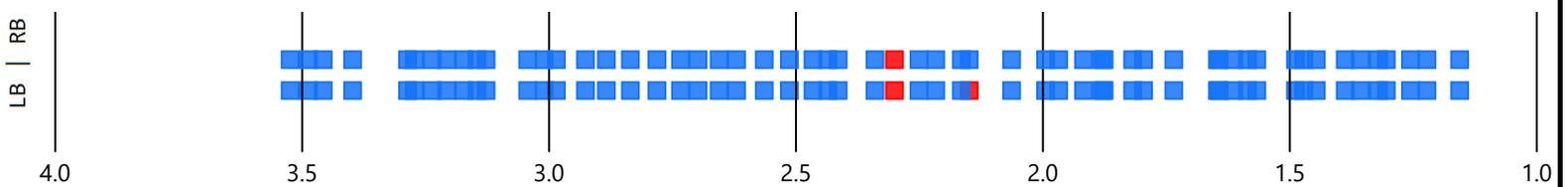
Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



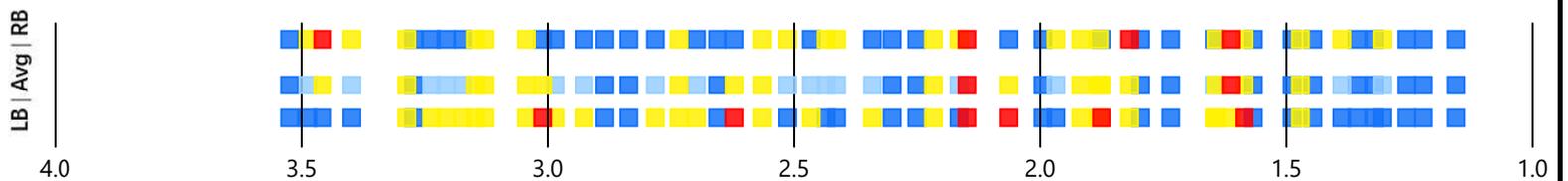
Bank Condition

■ Hardened Structure ■ Natural



Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

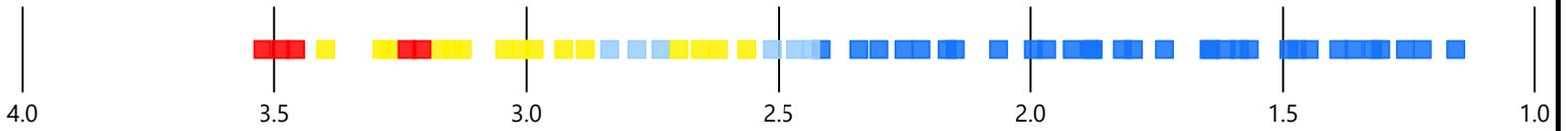


← FLOW DIRECTION **Creek Mile (3.50 at Tailwater, 1.15 at Headwater)** ← FLOW DIRECTION

REACH N

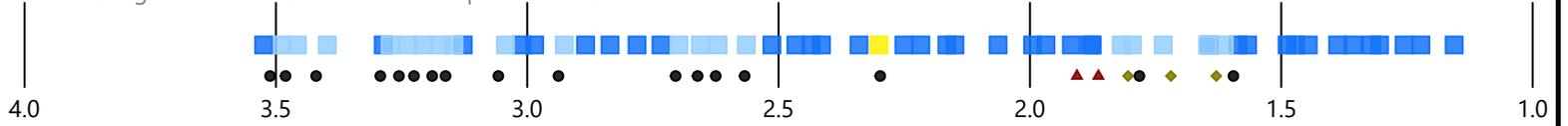
Water Appearance

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



Nutrient Enrichment

■ Low ■ Mild ■ Moderate
NE Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds



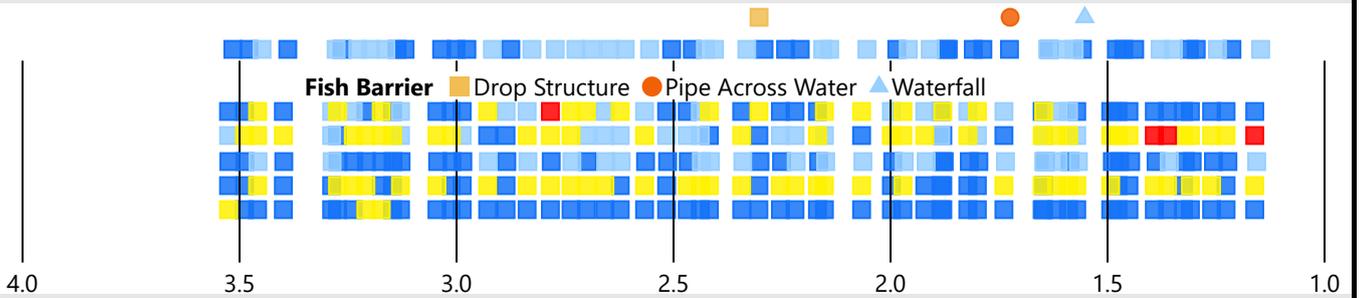
Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.

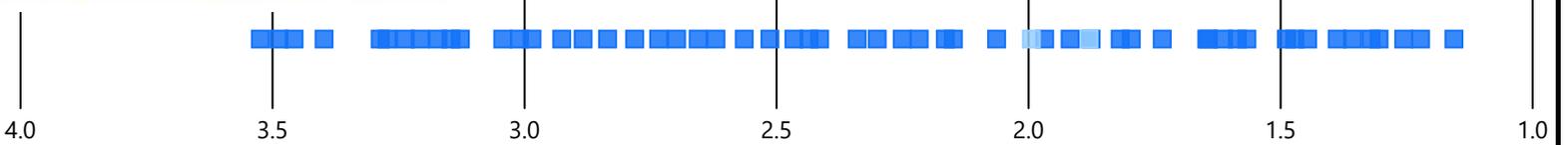
OVERALL SCORE

Canopy Cover
Pools
Invertebrate Habitat
Instream Cover
Riffle Embeddedness



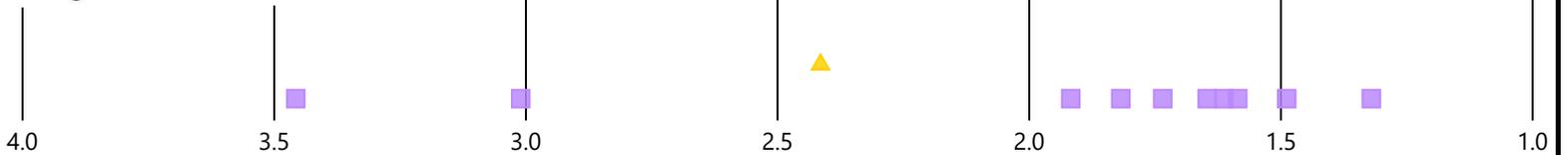
Manure Presence

■ Evidence of Animals in Zone ■ None



Invasive Species

▲ Phragmites ■ Purple Loosestrife



Aquatic Vegetation

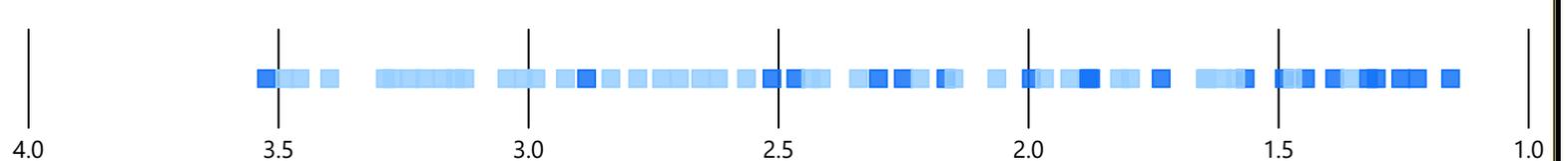
▲ Emergent ● Submerged



OVERALL SVAP RATING

GHENY BROOK

Score ■ Excellent ■ Good



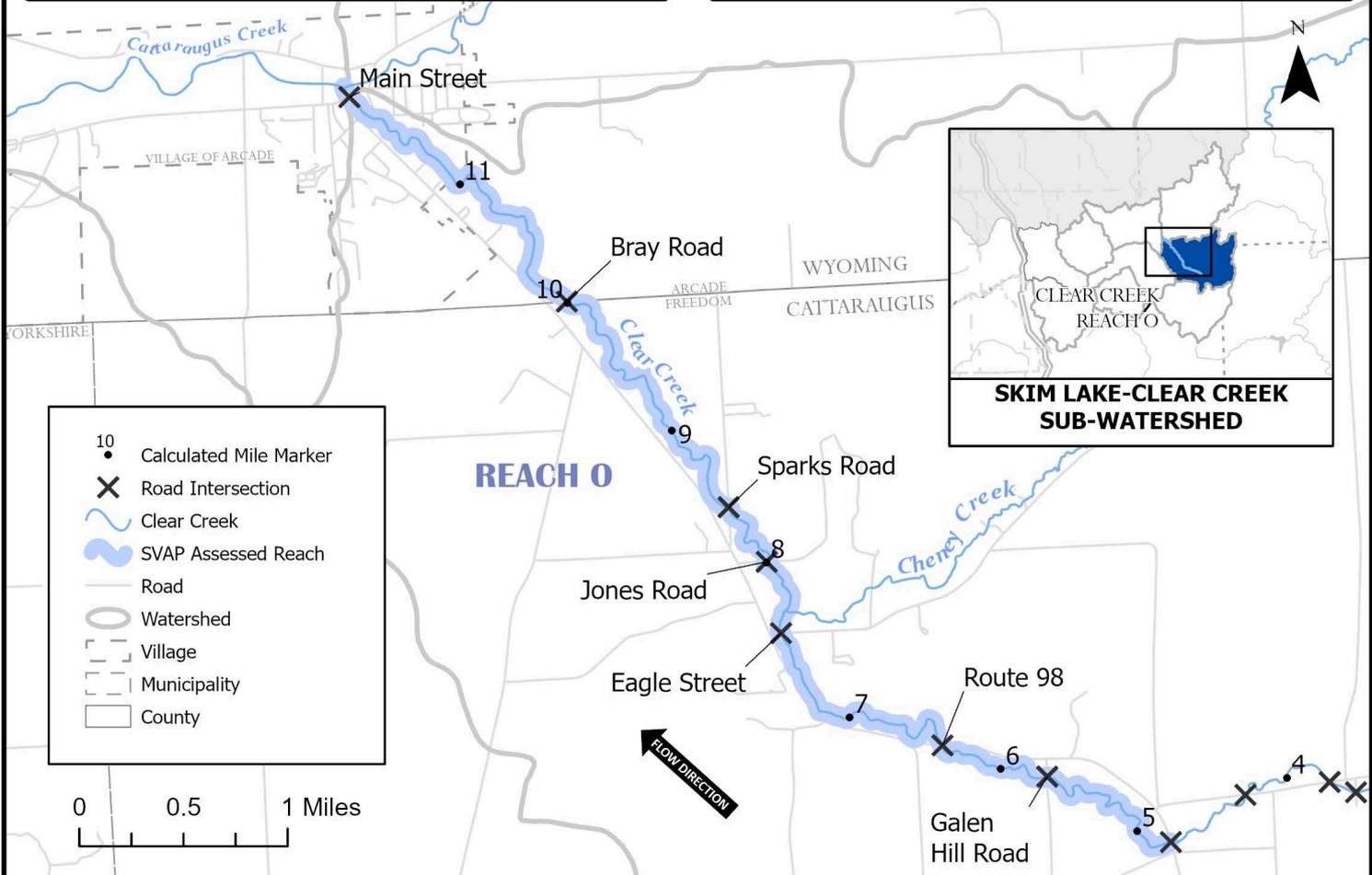
← FLOW DIRECTION

Creek Mile (3.50 at Tailwater, 1.15 at Headwater)

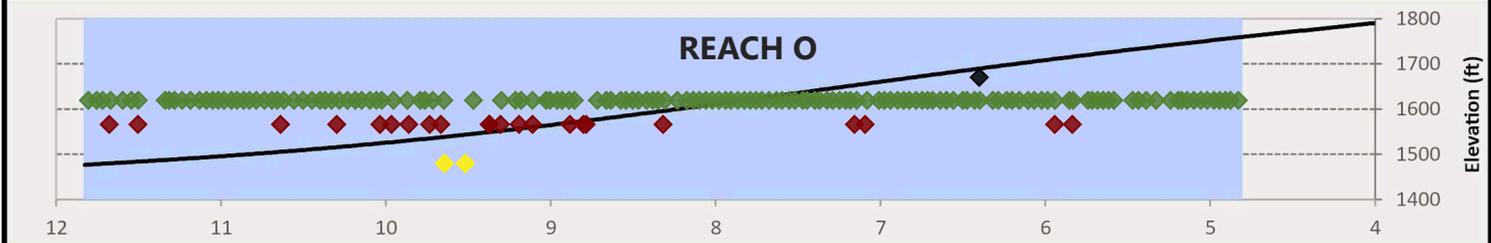
← FLOW DIRECTION

CLEAR CREEK
STREAM VISUAL ASSESSMENT PROTOCOL(SVAP) REACH 0

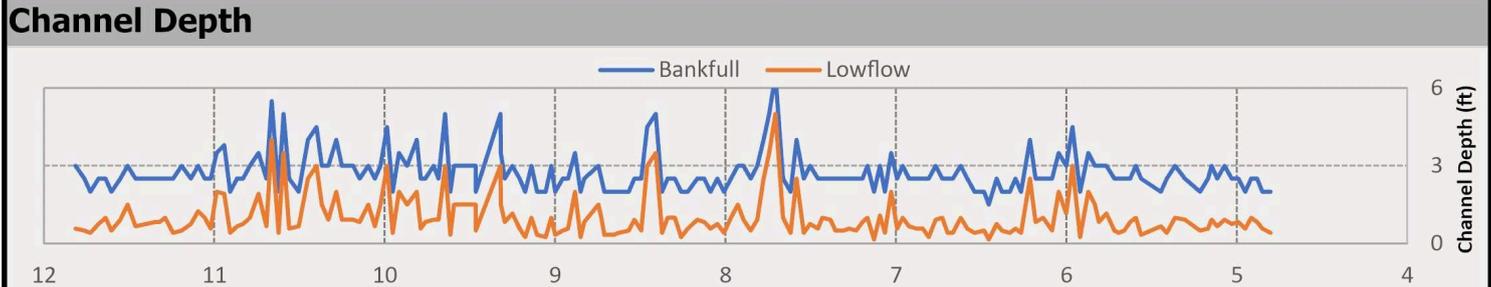
AVERAGE OVERALL SVAP RATING: **7.8**



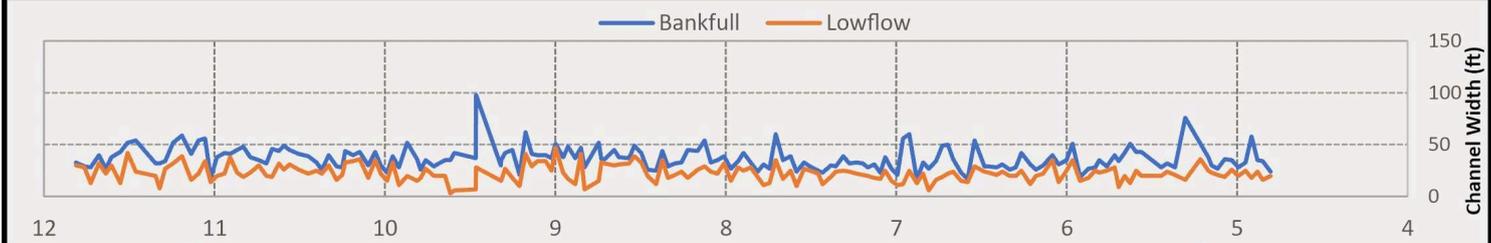
Elevation Profile Substrate: ◆ Boulder ◆ Cobble ◆ Gravel ◆ Silt/Clay



Channel Depth



Channel Width



← FLOW DIRECTION **Creek Mile: Reach 0 (11.80 at Tailwater, 4.80 at Headwater)** → FLOW DIRECTION

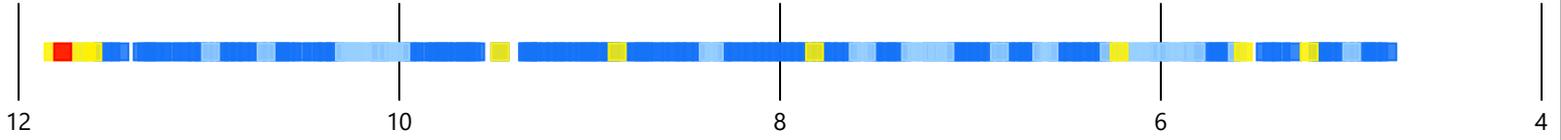
Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH 0

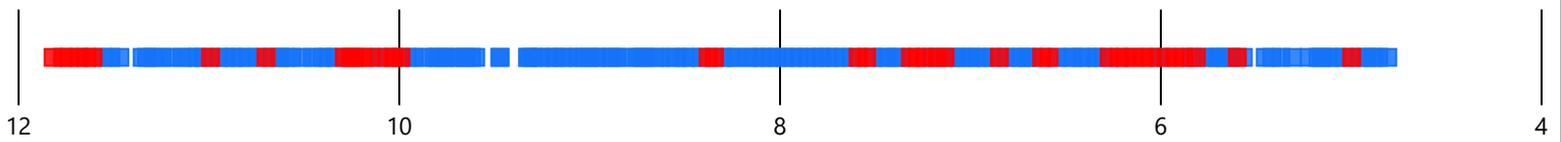
Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



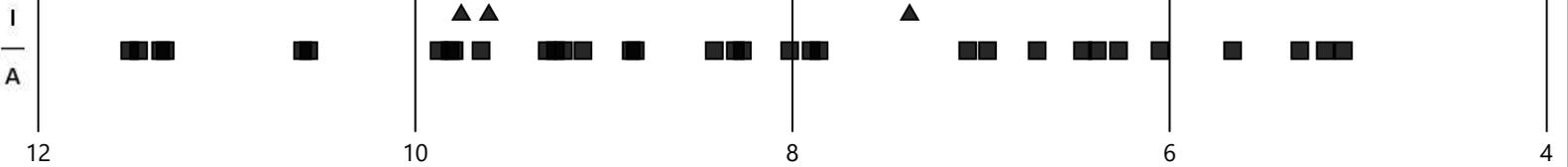
Stream Bank Hardening

■ NO ■ YES



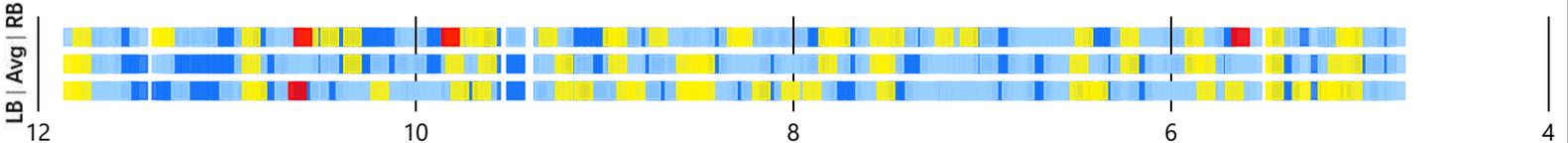
Aggradation/Incision

■ Aggradation ▲ Incision



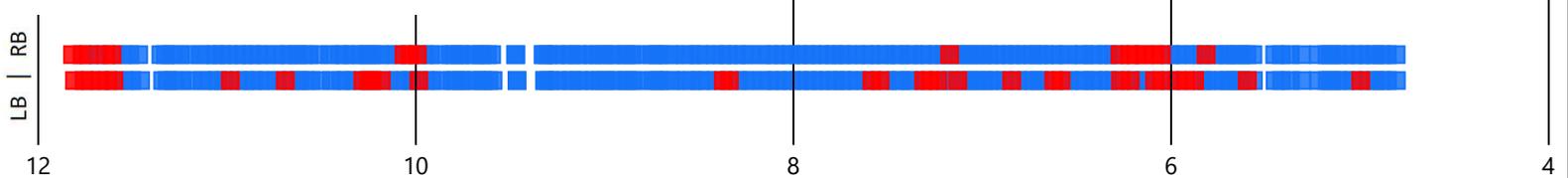
Bank Stability

Score ■ Excellent ■ Good ■ Mediocre



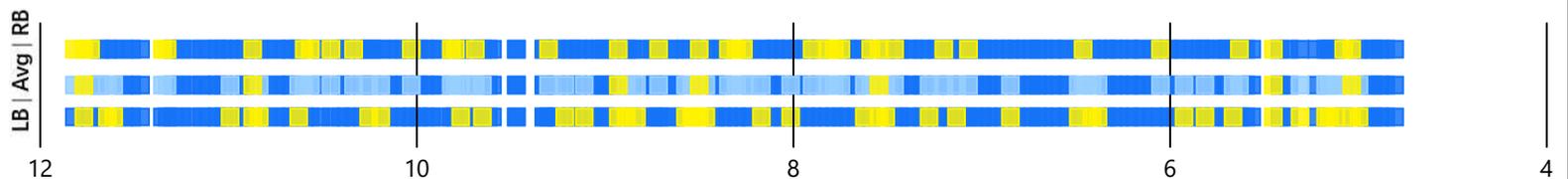
Bank Condition

■ Hardened Structure ■ Natural



Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre

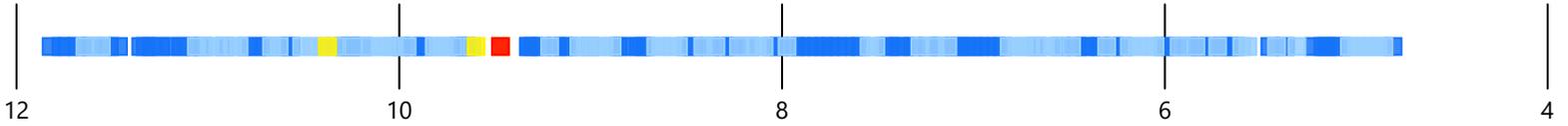


← FLOW DIRECTION
Creek Mile (11.80 at Tailwater, 4.80 at Headwater)
← FLOW DIRECTION

REACH 0

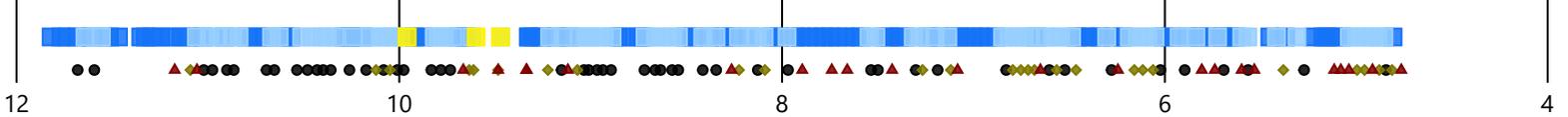
Water Appearance

Score Excellent Good Mediocre Poor



Nutrient Enrichment

Low Mild Moderate NE Notes Algal Growth Both Dense Aquatic Plant Beds

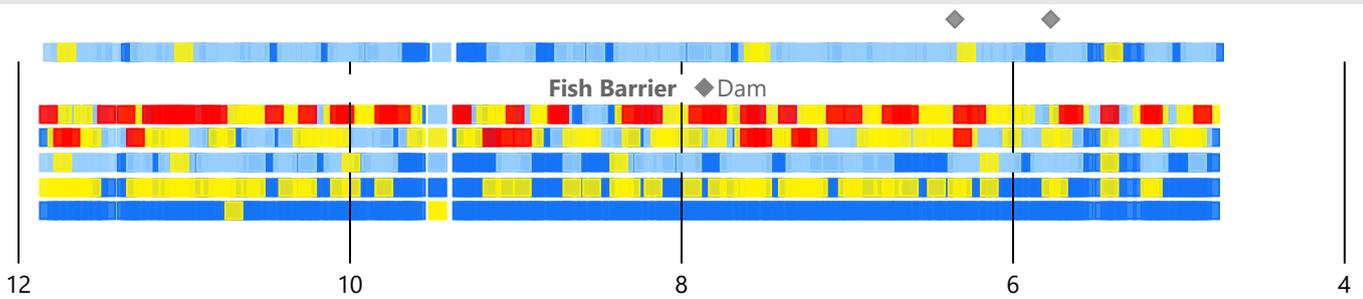


Fish Habitat

Score Excellent Good Mediocre Poor Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.

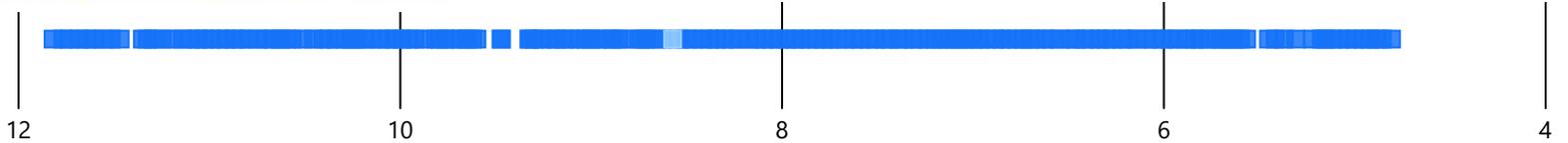
OVERALL SCORE

Canopy Cover Pools Invertebrate Habitat Instream Cover Riffle Embeddedness



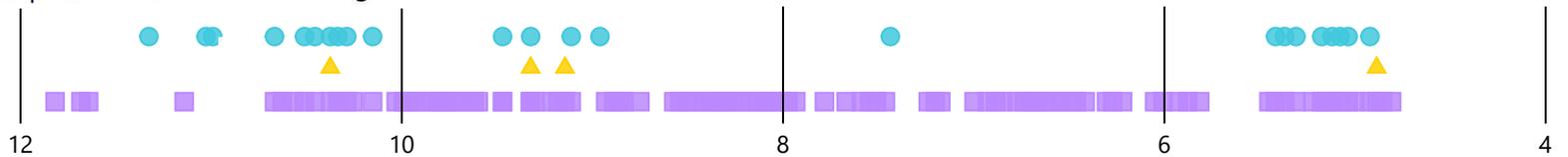
Manure Presence

Evidence of Animals in Zone None



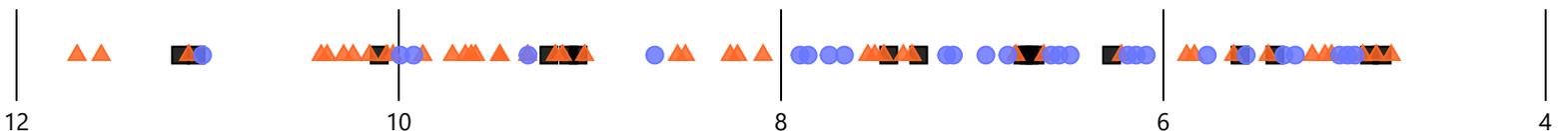
Invasive Species

Japanese Knotweed Phragmites Purple Loosestrife



Aquatic Vegetation

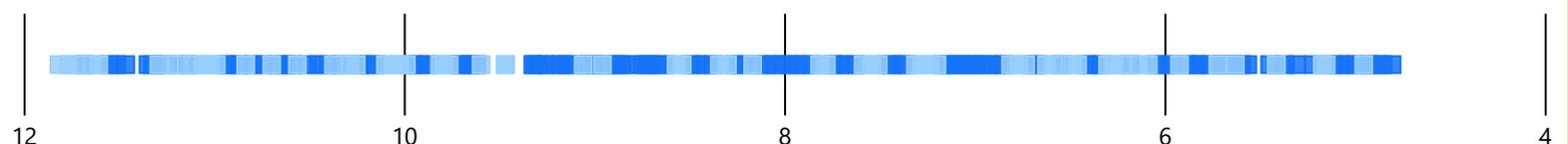
Both Emergent Submerged



OVERALL SVAP RATING

CLEAR CREEK

Score Excellent Good

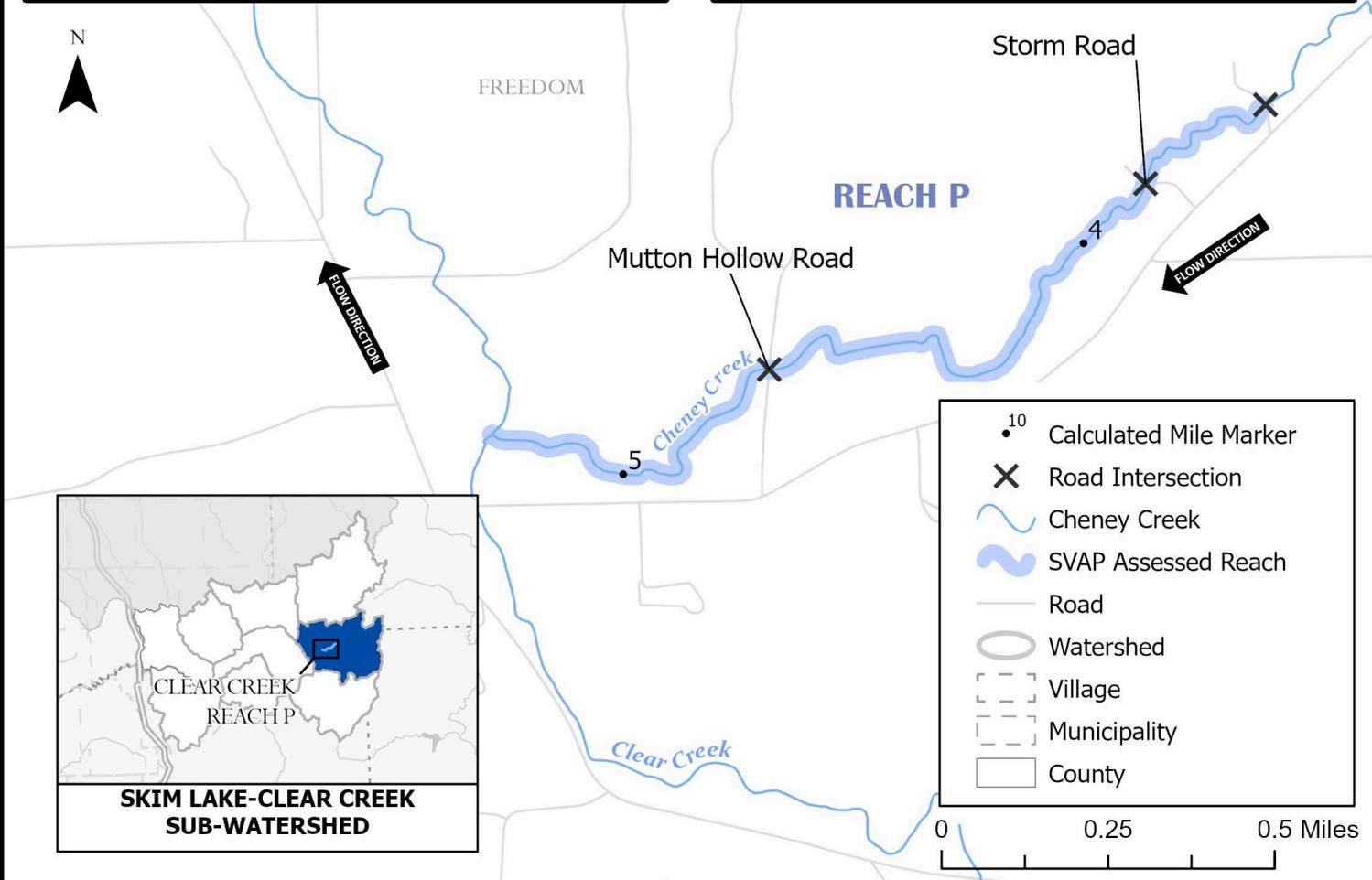


Creek Mile (11.80 at Tailwater, 4.80 at Headwater)

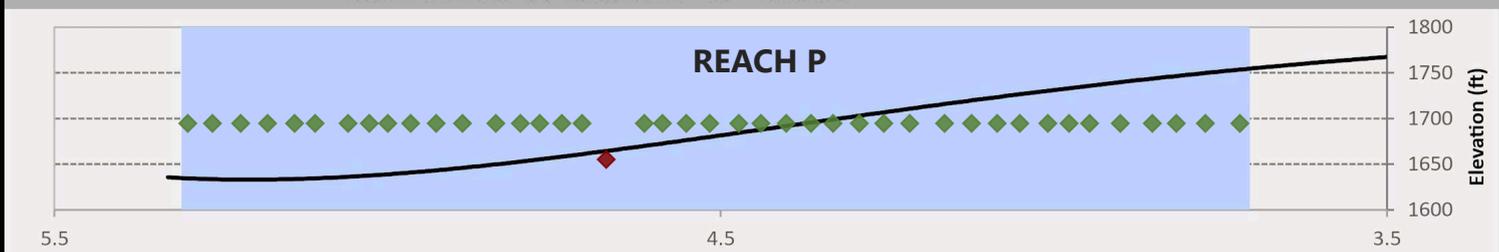


CHENEY CREEK
STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) REACH P

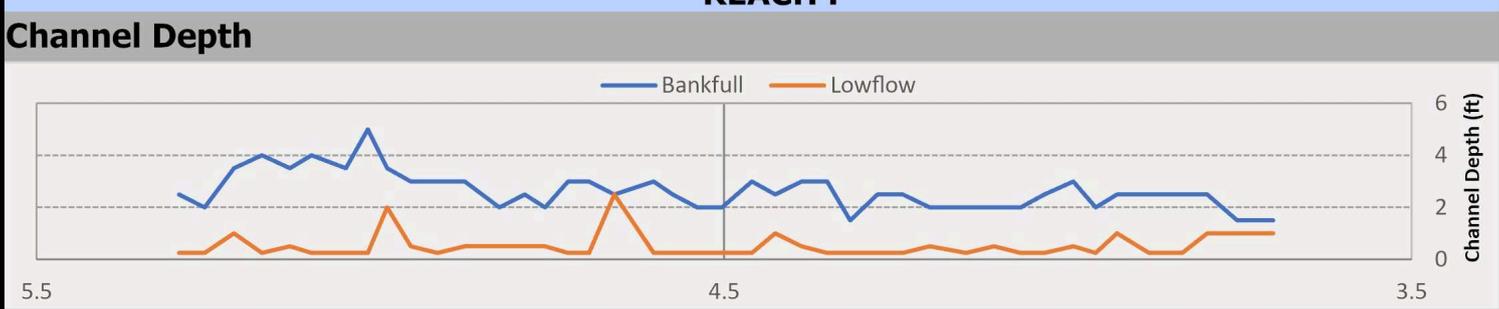
AVERAGE OVERALL SVAP RATING: **9.1**



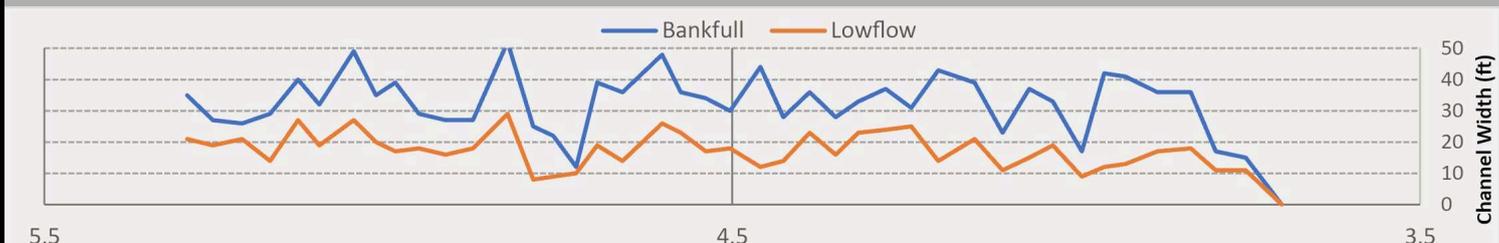
Elevation Profile Substrate: ◆ Cobble ◆ Gravel



Channel Depth



Channel Width



Creek Mile: Reach P (5.20 at Tailwater, 3.70 at Headwater)

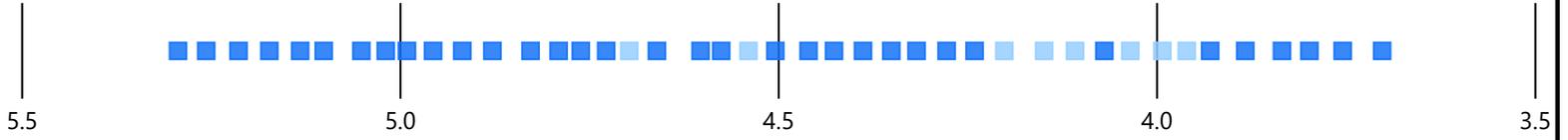
Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH P

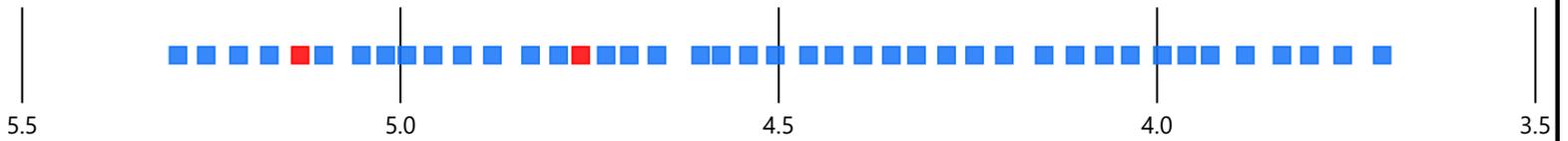
Channel Conditions

Score ■ Excellent ■ Good



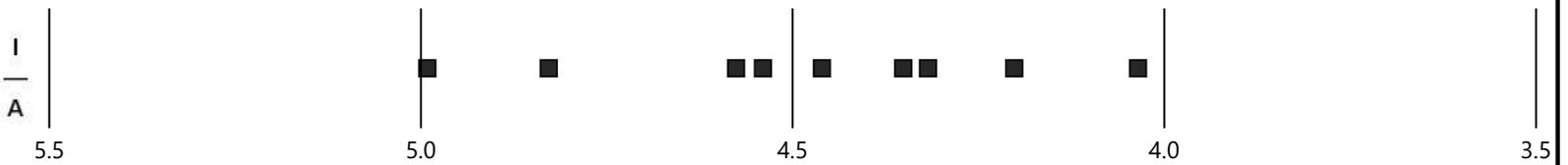
Stream Bank Hardening

■ NO ■ YES



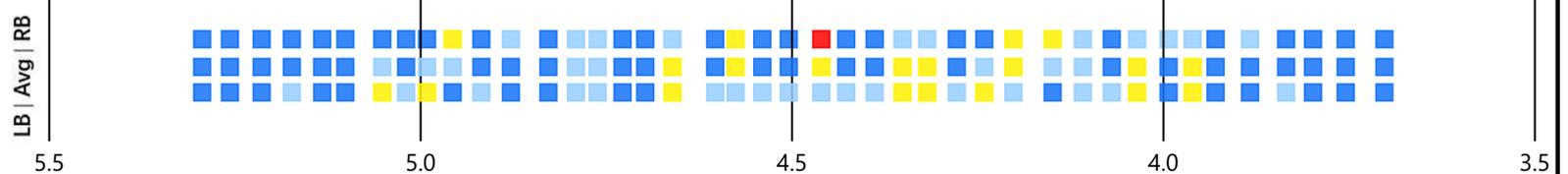
Aggradation/Incision

■ Aggradation ▲ Incision



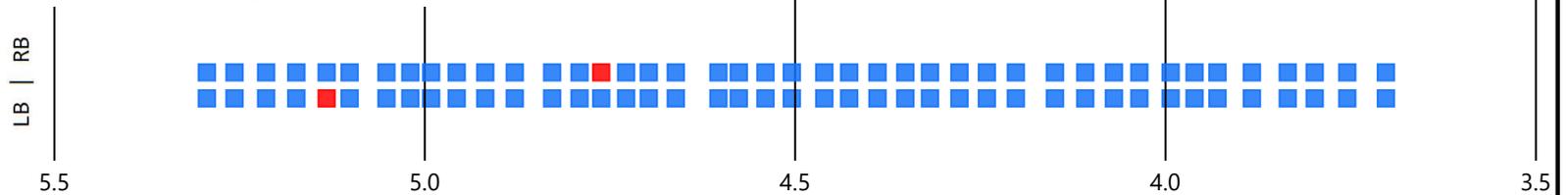
Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



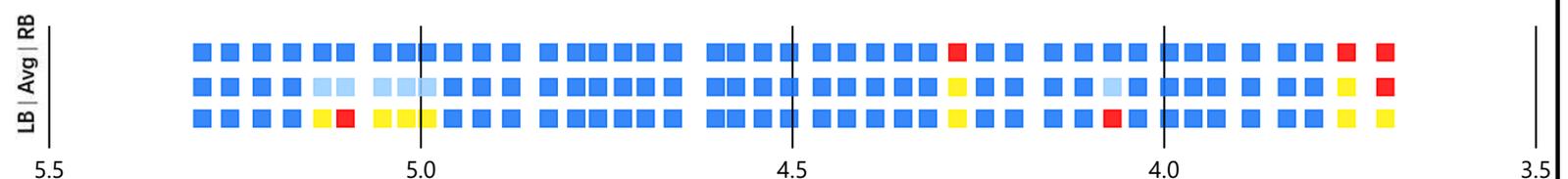
Bank Condition

■ Hardened Structure ■ Natural



Riparian Zone

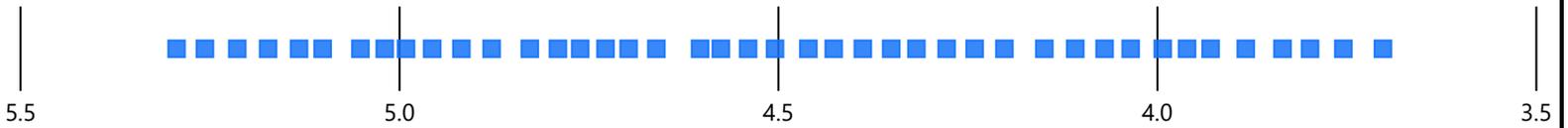
Score ■ Excellent ■ Good ■ Mediocre ■ Poor



REACH P

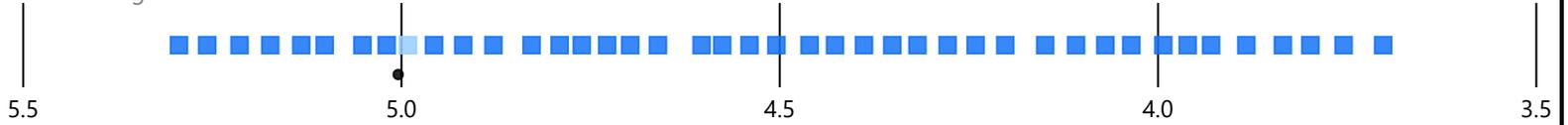
Water Appearance

Score ■ Excellent



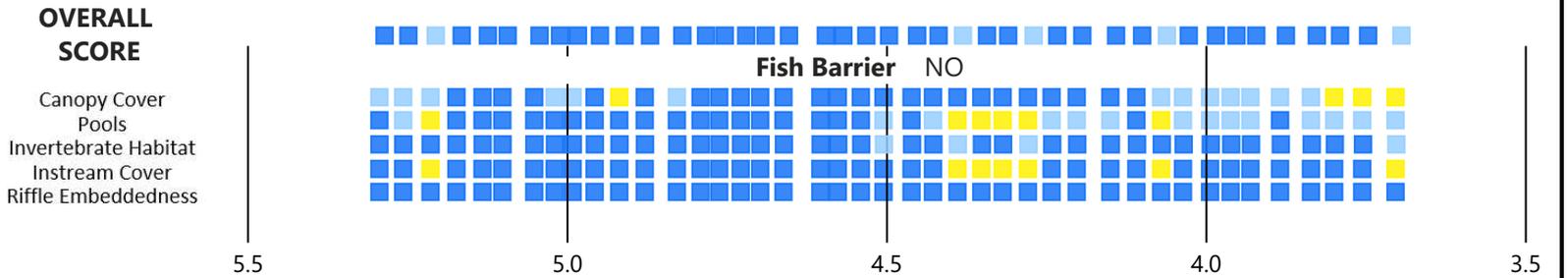
Nutrient Enrichment

Score ■ Low ■ Mild
NE Notes ● Algal Growth



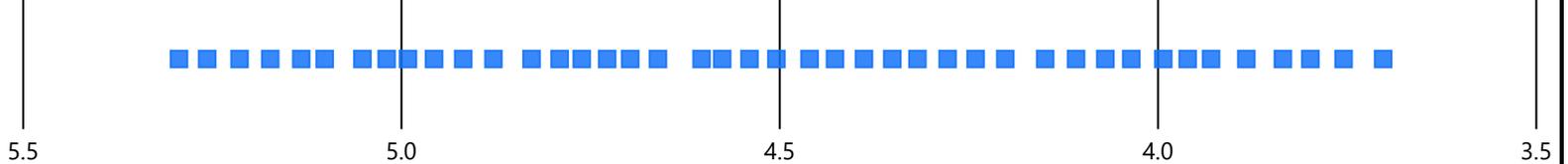
Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor *Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.*



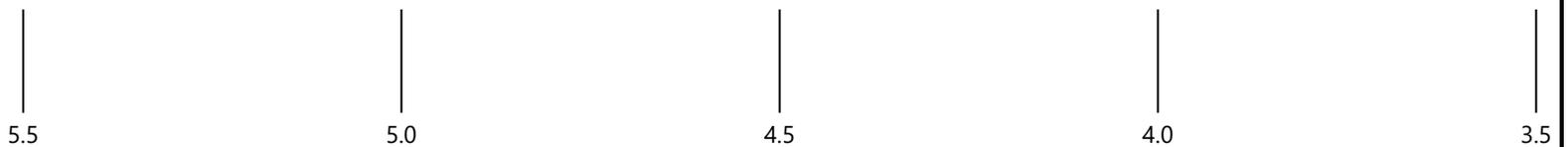
Manure Presence

■ None



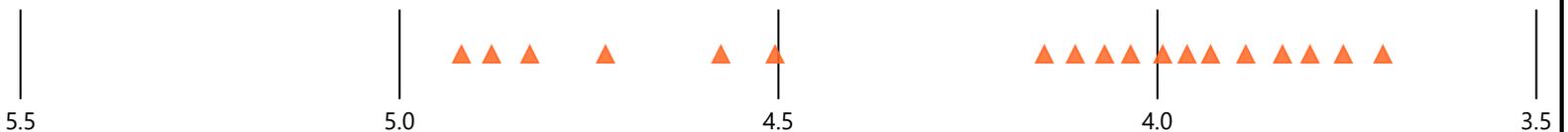
Invasive Species

None Observed



Aquatic Vegetation

▲ Emergent



OVERALL SVAP RATING

CHENEY CREEK

Score ■ Excellent ■ Good

